MAGNITUDE 7
Metals

Magnitude 7 Metals, LLC.

P.O. Box 395
391 St. Jude Industrial Park
Marston, MO 63866
Tel (573) 643-0023
Fax (573) 643-0016

143-0008

January 9, 2019

Missouri Department of Natural Resources
Air Pollution Control Program
Operating Permit Unit
1659 East Elm
P.O. Box 176
Jefferson City, MO 65101-0176

VIA UPS

Enclosed please find two (2) copies of the Part 70 Operating Permit renewal application for Magnitude 7 Metals, LLC plant located in New Madrid, Missouri. This is an updated application as requested by the Department to update the original application submitted by the previous owner (Noranda Aluminum) on October 10, 2005. Also enclosed is check #3228 in the amount of $6000 to cover the cost of the filing fee for the permit.

If you have any questions, you can contact me at (573) 643-0023 or by e-mail at don.backfisch@magnitude7metals.com.

Sincerely,

Don Backfisch

Don Backfisch
Environmental Director

DB:file

FOR OFFICE USE ONLY	
FILING FEE	
CHECK NUMBER: 3228	CHECK RECEIVED: 1-10-19
CHECK AMOUNT: *6000.00	CHECK DATE: 1-9-19
PROJECT NUMBER: 2019-01-016	

MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM
APPLICATION FOR AUTHORITY TO OPERATE

dh

NOTE: Please read all instructions to complete forms properly.

FORM OP-A01 – Section A

A01.00 – GENERAL APPLICATION INFORMATION

All applications MUST be accompanied by a filling fee. The amount of the filing fee shall be as indicated in 10 CSR 10-6.065(5)(B)1.D or 10 CSR 10-6.065(6)(B)1.D.

1. INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

INSTALLATION STREET ADDRESS	COUNTY NAME OF INSTALLATION
391 St Jude Industrial Park	New Madrid

CITY OF INSTALLATION STREET ADDRESS	STATE	ZIP CODE	INSTALLATION TELEPHONE NUMBER WITH AREA CODE
Marston	MO	63866	(573) 643-0023

INSTALLATION MAILING ADDRESS	INSTALLATION FAX NUMBER WITH AREA CODE
P.O. Box 395	

CITY OF MAILING ADDRESS FOR INSTALLATION	STATE	ZIP CODE	MO SENATORIAL DISTRICT NUMBER
Marston	MO	63866	25

INSTALLATION CONTACT PERSON	MO REPRESENTATIVE DISTRICT NUMBER
Mr. Don Backfisch	149

INSTALLATION CONTACT'S TITLE	EMAIL OF CONTACT PERSON FOR INSTALLATION
Environmental Superintendent	don.backfisch@magnitude7metals.com

2. PARENT COMPANY NAME	MAILING ADDRESS OF PARENT COMPANY

PARENT COMPANY CITY	STATE	ZIP CODE

PARENT COMPANY CONTACT PERSON	TELEPHONE NUMBER WITH AREA CODE OF PARENT COMPANY CONTACT

TITLE OF CONTACT PERSON FOR PARENT COMPANY	EMAIL OF CONTACT PERSON FOR PARENT COMPANY

3. TYPE OF APPLICATION

- [x] PART 70 (MAJOR)
  - [ ] Initial
  - [x] Renewal
  - [ ] Off-Permit Change
  - [ ] Administrative Amendment
  - [ ] Minor Modification
  - [ ] Significant Modification
- [ ] INTERMEDIATE STATE
  - [ ] Initial
  - [ ] Renewal
  - [ ] Amendment
- [ ] BASIC STATE
  - [ ] Initial
  - [ ] Renewal
  - [ ] Amendment

4. APPLICANT'S CERTIFICATION STATEMENT

"I certify, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate and complete."

SIGNATURE OF RESPONSIBLE OFFICIAL OF COMPANY	DATE
S. Rusche	1/9/19

TYPE OR PRINT NAME OF RESPONSIBLE OFFICIAL	TELEPHONE NUMBER WITH AREA CODE OF OFFICIAL
Steve Rusche	(573) 643-0023

OFFICIAL TITLE OF RESPONSIBLE OFFICIAL	RESPONSIBLE OFFICIAL'S EMAIL
COO	steve.rusche@magnitude7metals.com

FORM OP-A02 – APPLICATION FOR AUTHORITY TO OPERATE – SECTION A

A02.00 – APPLICATION FOR AUTHORITY TO OPERATE

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

1. LIST THE INSTALLATION'S PRINCIPAL PRODUCT(S)

PRINCIPAL PRODUCT(S)	TWO-DIGIT SIC CODE
Aluminum alloy extrusion billets, ingots, rods	33

2. LIST ALL OF THE INSTALLATION'S PROCESSES

PROCESSES	TWO-DIGIT SIC CODE
Primary Aluminum Reduction	33
Rod Milling	33
Secondary Aluminum Production	33

3. HAS THE INSTALLATION SUBMITTED AN EMISSION INVENTORY QUESTIONNAIRE, OR EIQ, IN THE PAST FIVE YEARS?

YES ☑ NO ☐ If No, submit one copy of a completed EIQ with this application and complete the table below.

If No, indicate the number of each EIQ form submitted with the application.

	1.1	Process Flow Diagram		2.3	VOC Process Mass-Balance Worksheet
	1.2	Summary of Emission Points		2.4	Petroleum Loading Worksheet
	2.0	Emission Point Information		2.5	Organic Liquid Storage-Fixed Roof Tank
	2.0C	Control Device Information		2.5L	General Liquid Storage Tank Information
	2.0P	Portable Plant Information		2.6	Organic Liquid Storage-Floating Roof Tank
	2.0S	Stack Information		2.7	Haul Road Fugitive Emissions Worksheet
	2.0Z	Ozone Season Information		2.8	Storage Pile Worksheet
	2.1	Fuel Combustion Worksheet		2.9	Stack Test/Continuous Emission Monitoring Worksheet
	2.2	Incinerator Worksheet		2.T	Hazardous Air Pollutant Worksheet

4. INDICATE THE NUMBER OF EACH APPLICATION FORM, LISTED BELOW, INCLUDED WITH THIS APPLICATION

1	C01.00	Insignificant Activities Required To Be Listed	N/A	D03.20	Combustion Turbines and Internal Combustion Engines
4	D01.00	Existing Plant-Wide Conditions	N/A	D03.30	Spray Booths
1	D02.00	Proposed Plant-Wide Conditions	N/A	D04.00	Alternate Operating Scenario/Voluntary Conditions
33	D03.00	General Emission Unit	1	D05.00	Compliance Determination
N/A	D03.10	Indirect Heating Sources	4	F01.00	General Comments

MO 780-1519 (01-17)

FORM OP-B01 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B01.00 – APPLICABLE REQUIREMENTS CHECKLIST

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

ENTIRE STATE OF MISSOURI

(NOTE: ALL INSTALLATIONS MUST SUBMIT FORM OP–B01.00)

1. STATE ADMINISTRATIVE PERMIT REQUIREMENTS

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
	X	J	10 CSR 10-6.010	Ambient Air Quality Standards [1]
X		J	10 CSR 10-6.020	Definitions and Common Reference Tables [1]
X		J	10 CSR 10-6.030	Sampling Methods for Air Pollution Sources [1]
	X	J	10 CSR 10-6.040	Reference Methods [1]
X		J	10 CSR 10-6.300	Conformity of General Federal Actions to State Implementation Plans [1]
X		J	10 CSR 10-6.320	Sales Tax Exemption [2]

2. CORE PERMIT REQUIREMENTS

TITLE	ORGANIZATION
10 CSR 10-6.050	Start-Up, Shutdown, and Malfunction Conditions [1]
10 CSR 10-6.060	Construction Permits Required [1]
10 CSR 10-6.065	Operating Permits [1]
10 CSR 10-6.110	Submission of Emission Data, Emission Fees and Process Information [1]
10 CSR 10-6.130	Controlling during Episodes of High Air Pollution [1]
10 CSR 10-6.140	Restrictions of Emissions Credit for Reduced Pollutant Concentrations from the use of Dispersion Techniques [1]
10 CSR 10-6.150	Circumvention [1]
10 CSR 10-6.170	Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin [1]
10 CSR 10-6.180	Measurement of Emissions of Air Contaminants [1]
10 CSR 10-6.210	Confidential Information [1]
10 CSR 10-6.230	Administrative Penalties [2]
10 CSR 10-6.250	Asbestos Abatement Projects-Certification, Accreditation, and Business Exemption Requirements [2]
10 CSR 10-6.280	Compliance Monitoring Usage [1]

3. STATE APPLICABLE REQUIREMENTS

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
X			10 CSR 10-6.070	New Source Performance Regulations (**NOTE**: if yes, check specific subpart on Form OP-BO2.00) [2]
X			10 CSR 10-6.075	Maximum Achievable Control Technology Regulations (**NOTE**: if yes, check specific subpart Form OP-BO3.00) [2]
X			10 CSR 10-6.080	Emission Standards for Hazardous Air Pollutants (**NOTE**: if yes, check specific subpart Form OP-BO4.00) [2]
X			10 CSR 10-6.090	Restriction of Emission of Fluorides From Primary Aluminum Reduction Installations [1]
	X	C	10 CSR 10-6.100	Alternate Emission Limits For Ozone Nonattainment Areas [2]
	X	B	10 CSR 10-6.120	Restriction of Emissions of Lead From Specific Lead Smelter-Refinery Installations [1]
	X	B	10 CSR 10-6.200	Hospital, Medical, Infectious Waste Incinerators [1]
X			10 CSR 10-6.220	Restriction of Emission of Visible Air Contaminants [1]
X			10 CSR 10-6.240	Asbestos Abatement Projects—Registration, Notification and Performance Requirements [2]
X			10 CSR 10-6.260	Restriction of Emission of Sulfur Compounds [1]
	X	B	10 CSR 10-6.270	Acid Rain Source Permits Required – If Applicable, Submit Acid Rain Permit Applications to the EPA [2]
	X	B	10 CSR 10-6.310	Restriction of Emissions From Municipal Solid Waste Landfills [1]
	X	B	10 CSR 10-6.330	Restriction of Emissions From Batch-Type Charcoal Kilns [1]
	X	B	10 CSR 10-6.350	Emission Limitations and Emissions Trading of Oxides of Nitrogen [1]
	X	E	10 CSR 10-6.360	Control of NOx Emissions From Electric Generating Units and Non-Electric Generating Boilers [2]
	X	E	10 CSR 10-6.380	Control of NOx Emissions From Portland Cement Kilns
	X	E	10 CSR 10-6.390	Control of NOx Emissions From Large Stationary Internal Combustion Engines
X			10 CSR 10-6.400	Restriction of Emission of Particulate Matter From Industrial Processes [1]
X			10 CSR 10-6.405	Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating
	X	C	10 CSR 10-6.410	Emissions Banking and Trading

[1] Federal, state and local agency enforceable regulation.
[2] State and local agency enforceable regulation.

MO 780-1519 (01-17)

FORM OP-B02 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B			
B02.00 – APPLICABLE REQUIREMENTS CHECKLIST			
INSTALLATION NAME Magnitude 7 Metals, LLC	FIPS 143	PLANT NUMBER 0008	YEAR SUBMITTED 2019

NEW SOURCE PERFORMANCE REGULATIONS - 10 CSR 10-6.070

(NOTE: IF CHECKED YES ON FORM OP-B01.00 FOR 10 CSR 10-6.070, PLEASE IDENTIFY SPECIFIC SUBPART. IF CHECKED NO, THIS FORM DOES NOT NEED TO BE SUBMITTED. ALL STANDARDS ARE FEDERALLY ENFORCEABLE.)

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON	SUBPART	(40 CFR PART 60 NEW SOURCE PERFORMANCE STANDARDS)
X			A	General Provisions
	X	B	B	Adoption and Submittal of State Plans for Designated Facilities
	X	B	C	Emission Guidelines and Compliance Times
			Ca	[Reserved]
	X	B	Cb	Emission Guidelines and Compliance Times for Municipal Waste Combusters that are Constructed on or before December 19, 1995
	X	B	Cc	Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills
	X	B	Cd	Emission Guidelines and Compliance Times for Sulfuric Acid Productions Units
	X	B	Ce	Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators
	X	B	D	Fossil-Fuel Fired Steam Generators (construction started after 8/17/71)
	X	B	Da	Electric Utility Steam Generating Units(construction started after 9/18/78)
	X	B	Db	Industrial-Commercial-Institutional Steam Generating Units
	X	B	Dc	Small Industrial-Commercial-Institutional Steam Generating Units
	X	B	E	Incinerators
	X	B	Ea	Municipal Waste Combustors Constructed Between 12/20/89 and 9/20/94
	X	B	Eb	Municipal Waste Combustors After 9/20/94
	X	B	Ec	Hospital/Medical/Infectious Waste Incinerators Constructed After 6-20-96
	X	B	F	Portland Cement Plants
	X	B	G	Nitric Acid Plants
	X	B	H	Sulfuric Acid Plants
	X	B	I	Hot Mix Asphalt Facilities
	X	B	J	Petroleum Refineries
	X	B	Ja	Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007
	X	B	K	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978
	X	B	Ka	Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984
	X	B	Kb	Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
	X	B	L	Secondary Lead Smelters
	X	B	M	Secondary Brass and Bronze Production Plants
	X	B	N	Primary Emissions from Basic Oxygen Process Furnaces(construction after 6/11/73
	X	B	Na	Secondary Emissions from Basic Oxygen Process Steelmaking Facilities (Construction started after1/20/83)
	X	B	O	Sewage Treatment Plants
	X	B	P	Primary Copper Smelters
	X	B	Q	Primary Zinc Smelters
	X	B	R	Primary Lead Smelters
X			S	Primary Aluminum Reduction Plants
	X	B	T	Phosphate Fertilizer Industry; Wet-Process Phosphoric Acid Plants
	X	B	U	Phosphate Fertilizer Industry; Superphosphoric Acid Plants
	X	B	V	Phosphate Fertilizer Industry; Diammonium Phosphate Plants
	X	B	W	Phosphate Fertilizer Industry; Triple Superphosphate Plants
	X	B	X	Phosphate Fertilizer Industry; Granular Triple Superphosphate Storage Facilities
	X	B	Y	Coal Preparation Plants
	X	B	Z	Ferroalloy Production Facilities
	X	B	AA	Steel Plants Electric Arc Furnaces (Constructed from 11/21/74 to 8/17/83)
	X	B	AAa	Steel Plants Electric Arc Furnaces and Argon-oxygen Decarburization Vessels (Constructed after 8/7/83)
	X	B	BB	Kraft Pulp Mills
	X	B	CC	Glass Manufacturing Plants
	X	B	DD	Grain Elevators
	X	B	EE	Surface Coating of Metal Furniture

FORM OP-B02 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B			
B02.00 – APPLICABLE REQUIREMENTS CHECKLIST			
INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

NEW SOURCE PERFORMANCE REGULATIONS - 10 CSR 10-6.070 (CONTINUED)

(NOTE: IF CHECKED YES ON FORM OP-B01.00 FOR 10 CSR 10-6.070, PLEASE IDENTIFY SPECIFIC SUBPART. IF CHECKED NO, THIS FORM DOES NOT NEED TO BE SUBMITTED. ALL STANDARDS ARE FEDERALLY ENFORCEABLE.)

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON	SUBPART	(40 CFR PART 60 NEW SOURCE PERFORMANCE STANDARDS)
			FF	[Reserved]
	X	B	GG	Stationary Gas Turbines
	X	B	HH	Lime Manufacturing Plants
	X	B	KK	Lead-Acid Battery Manufacturing
	X	B	LL	Metallic Mineral Processing Plants
	X	B	MM	Automobile and Light-Duty Truck Surface Coating Operations
	X	B	NN	Phosphate Rock Plants
	X	B	PP	Ammonium Sulfate Manufacture
	X	B	QQ	Graphic Arts Industry; Publication Rotogravure Printing
	X	B	RR	Pressure Sensitive Tape and Label Surface Coating Operations
	X	B	SS	Industrial Surface Coating Large Appliances
	X	B	TT	Metal Coil Surface Coating
	X	B	UU	Asphalt Processing and Asphalt Roofing Manufacture
	X	B	VV	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
	X	B	VVa	Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006
	X	B	WW	Beverage Can Surface Coating Industry
	X	B	XX	Bulk Gasoline Terminals
	X	B	AAA	New Residential Wood Heaters
	X	B	BBB	Rubber Tire Manufacturing Industry
			CCC	[Reserved]
	X	B	DDD	Polymer Manufacturing Industry
			EEE	[Reserved]
	X	B	FFF	Flexible Vinyl and Urethane Coating and Printing
	X	B	GGG	Equipment Leaks of VOC in Petroleum Refineries
	X	B	GGGa	Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced After November 7, 2006
	X	B	HHH	Synthetic Fiber Production Facilities
	X	B	III	VOC Emissions from SOCMI Air Oxidation Unit Processes
	X	B	JJJ	Petroleum Dry Cleaners
	X	B	KKK	Equipment Leaks of VOC from Onshore Natural Gas Processing
	X	B	LLL	Onshore Natural Gas Processing-SO_2 Emissions
			MMM	[Reserved]
	X	B	NNN	VOC Emissions from SOCMI Distillation Operations
	X	B	OOO	Nonmetallic Mineral Processing Plants
	X	B	PPP	Wool Fiberglass Insulation Manufacturing Plants
	X	B	QQQ	VOC Emissions form Petroleum Refinery Wastewater Systems
	X	B	RRR	Synthetic Organic Chemical Manufacturing Reactor Processes
	X	B	SSS	Magnetic Tape Coating Facilities
	X	B	TTT	Industrial Surface Coating of Plastic Parts for Business Machines
	X	B	UUU	Calciners and Dryers in Mineral Industries
	X	B	VVV	Polymeric Coating of Supporting Substrates Facilities
	X	B	WWW	Landfills
	X	B	AAAA	Small Municipal Waste Combustion Units (started after 8/30/99, Modifications or Reconstruction after 6/6/01)
	X	B	BBBB	Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed On or Before August 30, 1999
	X	B	CCCC	Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for which Modification or Reconstruction is Commenced on or After June 1, 2001
	X	B	DDDD	Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units Constructed on or Before 11-30-99
	X	B	EEEE	Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006

FORM OP-B02 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B			
B02.00 – APPLICABLE REQUIREMENTS CHECKLIST			
INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

NEW SOURCE PERFORMANCE REGULATIONS - 10 CSR 10-6.070 (CONTINUED)

(NOTE: IF CHECKED YES ON FORM OP-B01.00 FOR 10 CSR 10-6.070, PLEASE IDENTIFY SPECIFIC SUBPART. IF CHECKED NO, THIS FORM DOES NOT NEED TO BE SUBMITTED. ALL STANDARDS ARE FEDERALLY ENFORCEABLE.)

APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 60 NEW SOURCE PERFORMANCE STANDARDS)
	X	B	FFFF	Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units that Commenced Construction On or Before December 9, 2004
			GGGG	[Reserved]
	X	B	HHHH	Emission Guidelines and Compliance Times for Coal-Fired Electric Steam Generating Units
	X	B	IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
	X	B	JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
	X	B	KKKK	Standards of Performance for Stationary Combustion Turbines
	X	B	LLLL	Standards of Performance for New Sewage Sludge Incineration Units
	X	B	MMMM	Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units

FORM OP-B03 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B			
B03.00 – APPLICABLE REQUIREMENTS CHECKLIST			
INSTALLATION NAME Magnitude 7 Metals, LLC	FIPS 143	PLANT NUMBER 0008	YEAR SUBMITTED 2019

MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY REGULATIONS - 10 CSR 10-6.075

(NOTE: IF CHECKED YES ON FORM OP-B01.00 FOR 10 CSR 10-6.075, PLEASE IDENTIFY THE SPECIFIC SUBPART. IF YOU CHECKED NO, THIS FORM DOES NOT NEED TO BE SUBMITTED. ALL STANDARDS ARE FEDERALLY ENFORCEABLE.)

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON	SUBPART	(40 CFR PART 63 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES)
X			A	General Provisions
	X	B	B	Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j)
	X	B	F	Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry
	X	B	G	Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater
	X	B	H	Organic Hazardous Air Pollutants for Equipment Leaks
	X	B	I	Organic Hazardous Air Pollutants for Certain Process Subject to the Negotiated Regulation for Equipment Leaks
	X	B	J	Polyvinyl Chloride Copolymers Production
			K	[Reserved]
	X	B	L	Coke Oven Batteries
	X	B	M	Perchloroethylene Air Emission for Dry Cleaning
	X	B	N	Chromium Emissions from Hard and Decorative Chromium Electroplating and from Chromium Anodizing Tanks
	X	B	O	Ethylene Oxide Emission for Sterilization Facilities
			P	[Reserved]
	X	B	Q	Hazardous Air Pollutants for Industrial Process Cooling Towers
	X	B	R	Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)
	X	B	S	Hazardous Air Pollutants from the Pulp and Paper Industry
	X	B	T	Halogenated Solvent Cleaning
	X	B	U	Group I Polymers and Resins
			V	[Reserved]
	X	B	W	Epoxy Resins Production and Non-Nylon Polyamides Production
	X	B	X	Hazardous Air Pollutants from Secondary Lead Smelting
	X	B	Y	National Emission Standards for Marine Vessel Loading and Unloading Operations
			Z	[Reserved]
	X	B	AA	Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants
	X	B	BB	Hazardous Air Pollutants from Phosphate Fertilizer Production Plants
	X	B	CC	Hazardous Air Pollutants; Petroleum Refineries
	X	B	DD	Off-Site Waste and Recovery Operations
	X	B	EE	Magnetic Tape Manufacturing Operations
			FF	[Reserved]
	X	B	GG	National Emissions Standards for Aerospace Manufacturing and Rework Facilities
	X	B	HH	Hazardous Air Pollutants from Oil and Natural Gas Production Facilities
	X	B	II	National Emission Standards for Shipbuilding & Ship Repair (Surface Coating)
	X	B	JJ	National Emission Standards for Wood Furniture Manufacturing Operations
	X	B	KK	National Emission Standard for the Printing and Publishing Industry
X			LL	Hazardous Air Pollutants for Primary Aluminum Reduction Plants
	X	B	MM	Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills
	X	B	OO	Tanks—Level 1
	X	B	PP	Containers
	X	B	QQ	Surface Impoundments
	X	B	RR	Individual Drain Systems
	X	B	SS	Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process
	X	B	TT	Equipment Leaks—Control Level 1
	X	B	UU	Equipment Leaks—Control Level 2 Standards
	X	B	VV	Oil Water Separators and Organic-Water Separators
	X	B	WW	Storage Vessels (Tanks)—Control Level 2
	X	B	XX	Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations

FORM OP-B03 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B			
B03.00 – APPLICABLE REQUIREMENTS CHECKLIST			
INSTALLATION NAME Magnitude 7 Metals, LLC	FIPS 143	PLANT NUMBER 0008	YEAR SUBMITTED 2019

MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY REGULATIONS - 10 CSR 10-6.075

(NOTE: IF CHECKED YES ON FORM OP-B01.00 FOR 10 CSR 10-6.075, PLEASE IDENTIFY THE SPECIFIC SUBPART. IF YOU CHECKED NO, THIS FORM DOES NOT NEED TO BE SUBMITTED. ALL STANDARDS ARE FEDERALLY ENFORCEABLE.)

APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 63 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES)
	X	B	YY	Hazardous Air Pollutants for Source Categories: Generic Maximum Available Control Technology Standards
			ZZ	[Reserved]
			AAA	[Reserved]
			BBB	[Reserved]
	X	B	CCC	Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants
	X	B	DDD	Hazardous Air Pollutants for Mineral Wool Production
	X	B	EEE	Hazardous Air Pollutants from Hazardous Waste Combustors
			FFF	[Reserved]
	X	B	GGG	Pharmaceuticals Production
	X	B	HHH	Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities
	X	B	III	Hazardous Air Pollutants for Flexible Polyurethane Foam Production
	X	B	JJJ	Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
			KKK	[Reserved]
	X	B	LLL	Hazardous Air Pollutants from the Portland Cement Manufacturing Industry
	X	B	MMM	Hazardous Air Pollutants for Pesticide Active Ingredient Production
	X	B	NNN	Hazardous Air Pollutants for Wool Fiberglass Manufacturing
	X	B	OOO	Manufacture of Amino/Phenolic Resins
	X	B	PPP	Hazardous Air Pollutant Emissions for Polyether Polyols Production
	X	B	QQQ	Primary Copper Smelting
X			RRR	Secondary Aluminum Production
			SSS	[Reserved]
	X	B	TTT	Hazardous Air Pollutants for Primary Lead Smelting
	X	B	UUU	Petroleum Refineries:Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units
	X	B	VVV	Hazardous Air Pollutants: Publicly Owned Treatment Works
			WWW	[Reserved]
	X	B	XXX	Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese
	X	B	AAAA	Municipal Solid Waste Landfills
	X	B	CCCC	Manufacturing of Nutritional Yeast
	X	B	DDDD	Plywood and Composite Wood Products
	X	B	EEEE	Organic Liquids Distribution (non-gasoline)
	X	B	FFFF	Miscellaneous Organic Chemical Manufacturing
	X	B	GGGG	Solvent Extractions for Vegetable Oil Production
	X	B	HHHH	Wet Formed Fiberglass Mat Production
	X	B	IIII	Surface Coating of Automobiles and Light Duty Trucks
	X	B	JJJJ	Paper and Other Web Coating
	X	B	KKKK	Surface Coating of Metal Cans
	X	B	MMMM	Surface Coating of Miscellaneous Metal Parts and Products
	X	B	NNNN	Surface Coating of Large Appliances
	X	B	OOOO	Printing, Coating and Dyeing of Fabrics and Other Textiles
	X	B	PPPP	Surface Coating of Plastic Parts and Products
	X	B	QQQQ	Surface Coating of Wood Building Products
	X	B	RRRR	Surface Coating of Metal Furniture
	X	B	SSSS	Surface Coating of Metal Coil
	X	B	TTTT	Leather Finishing Operations
	X	B	UUUU	Cellulose Products Manufacturing
	X	B	VVVV	Boat Manufacturing
	X	B	WWWW	Reinforced Plastic Composites Production
	X	B	XXXX	Rubber Tire Manufacturing
	X	B	YYYY	Stationary Combustion Turbines
	X	B	ZZZZ	Stationary Reciprocating Internal Combustion Engines (RICE)

FORM OP-B03 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B03.00 – APPLICABLE REQUIREMENTS CHECKLIST

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY REGULATIONS - 10 CSR 10-6.075

(NOTE: IF CHECKED YES ON FORM OP-B01.00 FOR 10 CSR 10-6.075, PLEASE IDENTIFY THE SPECIFIC SUBPART. IF YOU CHECKED NO, THIS FORM DOES NOT NEED TO BE SUBMITTED. ALL STANDARDS ARE FEDERALLY ENFORCEABLE.)

APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 63 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES)
	X	B	AAAAA	Lime Manufacturing Plants
	X	B	BBBBB	Semiconductor Manufacturing
	X	B	CCCCC	Coke Ovens: Pushing, Quenching and Battery Stacks
	X	B	DDDDD	Industrial, Commercial and Institutional Boilers and Process Heaters **(This subpart has been vacated by court action)**
	X	B	EEEEE	Iron and Steel Foundries
	X	B	FFFFF	Integrated Iron and Steel Manufacturing Facilities
	X	B	GGGGG	Site Remediation
	X	B	HHHHH	Miscellaneous Coating Manufacturing (MON)
	X	B	IIIII	Mercury Emissions from Mercury Cell Chlor-Alkali Plants
	X	B	JJJJJ	Brick and Structural Clay Products Manufacturing **(This subpart has been vacated by court action)**
	X	B	KKKKK	Clay Ceramics Manufacturing **(This subpart has been vacated by court action)**
	X	B	LLLLL	Asphalt Processing and Asphalt Roofing Manufacture
	X	B	MMMMM	Flexible Polyurethane Foam Fabrication Operations
	X	B	NNNNN	Hydrochloric Acid Production
			OOOOO	[Reserved]
	X	B	PPPPP	Engine Test Cells/Stands
	X	B	QQQQQ	Friction Materials Manufacturing
	X	B	RRRRR	Taconite Iron Ore Processing
	X	B	SSSSS	Refractory Products Manufacturing
	X	B	TTTTT	Primary Magnesium Refining
			UUUUU	[Reserved]
			VVVVV	[Reserved]
	X	B	WWWWW	Hospital Ethylene Oxide Sterilizers
			XXXXX	[Reserved]
	X	B	YYYYY	Area Sources: Electric Arc Furnace Steelmaking Facilities
	X	B	ZZZZZ	Iron and Steel Foundries Area Sources
			AAAAAA	[Reserved]
	X	B	BBBBBB	Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities
	X	B	CCCCCC	Source Category: Gasoline Dispensing Facilities
	X	B	DDDDDD	Polyvinyl Chloride and Copolymers Production Area Sources
	X	B	EEEEEE	Primary Copper Smelting Area Sources
	X	B	FFFFFF	Secondary Copper Smelting Area Sources
	X	B	GGGGGG	Primary Nonferrous Metals Area Sources—Zinc, Cadmium, and Beryllium
	X	B	HHHHHH	Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources
			IIIIII	[Reserved]
			JJJJJJ	[Reserved]
			KKKKKK	[Reserved]
	X	B	LLLLLL	Acrylic and Modacrylic Fibers Production Area Sources
	X	B	MMMMMM	Carbon Black Production Area Sources
	X	B	NNNNNN	Chemical Manufacturing Area Sources: Chromium Compounds
	X	B	OOOOOO	Flexible Polyurethane Foam Production and Fabrication Area Sources
	X	B	PPPPPP	Lead Acid Battery Manufacturing Area Sources
	X	B	QQQQQQ	Wood Preserving Area Sources
	X	B	RRRRRR	Clay Ceramics Manufacturing Area Sources
	X	B	SSSSSS	Glass Manufacturing Area Sources
	X	B	TTTTTT	Secondary Nonferrous Metals Processing Area Sources
			UUUUUU	[Reserved]
	X	B	VVVVVV	Chemical Manufacturing Area Sources
	X	B	WWWWWW	Area Source Standards for Plating and Polishing Operations
	X	B	XXXXXX	Area Source Standards for Nine Metal Fabrication and Finishing Source Categories

FORM OP-B03 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B			
B03.00 – APPLICABLE REQUIREMENTS CHECKLIST			
INSTALLATION NAME Magnitude 7 Metals, LLC	FIPS 143	PLANT NUMBER 0008	YEAR SUBMITTED 2019

MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY REGULATIONS - 10 CSR 10-6.075

(NOTE: IF CHECKED YES ON FORM OP-B01.00 FOR 10 CSR 10-6.075, PLEASE IDENTIFY THE SPECIFIC SUBPART. IF YOU CHECKED NO, THIS FORM DOES NOT NEED TO BE SUBMITTED. ALL STANDARDS ARE FEDERALLY ENFORCEABLE.)

APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 63 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES)
	X	B	YYYYYY	Ferroalloys Production Facilities
	X	B	ZZZZZZ	Aluminum, Copper, and Other Nonferrous Foundries
	X	B	AAAAAAA	Asphalt Processing and Asphalt Roofing Manufacturing
	X	B	BBBBBBB	Chemical Preparations Industry
	X	B	CCCCCCC	Paints and Allied Products Manufacturing
	X	B	DDDDDDD	Area Source Standards for Prepared Feeds Manufacturing
	X	B	EEEEEEE	Gold Mine Ore Processing and Production Area Source Category

MO 780-1519 (01-17)

FORM OP-B04 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B04.00 – APPLICABLE REQUIREMENTS CHECKLIST

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS - 10CSR 10-6.080

(NOTE: If checked yes on Form OP-B01.00 for 10 CSR 10-6.080, please identify the specific subpart. If checked no, this form does not need to be submitted. All standards are federally enforceable.)

APPLICABILITY			TITLE SUBPART	ORGANIZATION (40 CFR PART 61 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS)
YES	NO	REASON		
X			A	General Provisions
	X	B	B	Radon Emissions from Underground Uranium Mines
	X	B	C	Beryllium
	X	B	D	Beryllium Rocket Motor Firing
	X	B	E	Mercury
	X	B	F	Vinyl Chloride
			G	[Reserved]
	X	B	H	Emissions of Radionuclides Other Than Radon From Department of Energy Facilities
	X	B	I	Radionuclides Emissions from Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H
	X	B	J	Equipment Leaks (Fugitive Emission Sources) of Benzene
	X	B	K	Radionuclide Emission from Elemental Phosphorous Plants
	X	B	L	Benzene Emissions from Coke By-Products Recovery Plants
X			M	Asbestos
	X	B	N	Inorganic Arsenic Emissions from Glass Manufacturing Plants
	X	B	O	Inorganic Arsenic Emissions from Primary Copper Smelters
	X	B	P	Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities
	X	B	Q	Radon Emissions from Department of Energy Facilities
	X	B	R	Radon Emissions from Phosphogypsum
			S	[Reserved]
	X	B	T	Radon Emissions from the Disposal of Uranium Mill Tailings
			U	[Reserved]
	X	B	V	Equipment Leaks (Fugitive Emission Sources)
	X	B	W	Radon Emissions from Operating Mill Tailings
			X	[Reserved]
	X	B	Y	Benzene Emissions from Benzene Storage Vessels
			Z	[Reserved]
			AA	[Reserved]
	X	B	BB	Benzene Emissions from Benzene Transfer Operations
			CC	[Reserved]
			DD	[Reserved]
			EE	[Reserved]
	X	B	FF	Benzene Waste Operations

FORM OP-B05 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B05.00 – APPLICABLE REQUIREMENTS CHECKLIST

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

KANSAS CITY METROPOLITAN AREA

(NOTE: PLEASE INCLUDE FORM OP-B05.00 IF LOCATED WITHIN THE FOLLOWING COUNTIES: BUCHANAN, CASS, CLAY, JACKSON, PLATTE AND RAY)

1. STATE ADMINISTRATIVE PERMIT REQUIREMENTS

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
	X	J	10 CSR 10-2.150	Time Schedule for Compliance [1]
	X	J	10 CSR 10-2.390	Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws [1]

2. CORE PERMIT REQUIREMENTS

TITLE	ORGANIZATION
10 CSR 10-2.070	Restriction of Emission of Odors [2]
10 CSR 10-2.100	Open Burning Restrictions [1]

3. APPLICABLE REQUIREMENTS

This form does not apply to Magnitude 7 Metal's renewal application.

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
			10 CSR 10	ure and Rework Facilities [1]
			10 CSR 10-2.210	Control of Emissions From Solvent Metal Cleaning [1]
			10 CSR 10-2.215	Control of Emissions From Solvent Cleanup Operations [1]
			10 CSR 10-2.220	Liquefied Cutback Asphalt Paving Restricted [1]
			10 CSR 10-2.230	Control of Emissions From Industrial Surface Coating Operations [1]
			10 CSR 10-2.260	Control of Petroleum Liquid Storage, Loading and Transfer [1]
			10 CSR 10-2.290	Control of Emissions From Rotogravure and Flexographic Printing Facilities [1]
			10 CSR 10-2.300	Control of Emissions From the Manufacturing of Paints, Varnishes, Lacquers, Enamels and Other Allied Surface Coating Products [1]
			10 CSR 10-2.310	Control of Emissions From the Application of Automotive Underbody Deadeners [1]
			10 CSR 10-2.320	Control of Emissions From Production of Pesticides and Herbicides [1]
			10 CSR 10-2.330	Control of Gasoline Reid Vapor Pressure [1]
			10 CSR 10-2.340	Control of Emissions From Lithographic Printing Facilities [1]
			10 CSR 10-2.360	Control of Emissions From Bakery Ovens [1]

[1] Federal, state and local agency enforceable regulation
[2] State and local agency enforceable regulation
[3] Only federally enforced regulation

FORM OP-B06 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B06.00 – APPLICABLE REQUIREMENTS CHECKLIST

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

KANSAS CITY HEALTH DEPARTMENT, AIR QUALITY PROGRAM
KANSAS CITY LOCAL ORDINANCES
(NOTE: PLEASE INCLUDE FORM OP-B06 IF LOCATED WITHIN THE CITY LIMITS OF KANSAS CITY, MISSOURI.)

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON	SECTION	
			8-2	Definitions [3]
			8-3	Administration and Enforcement[4]
			8-4	Open Burning Restriction [3]
			8-5	
			8-6	
			8-7	
			8-8	
			8-9	Restriction of Emission of Hazardous Air Pollutants [3]
			8-10	Review of New Sources and Modifications; Permit for Construction or Major Modification [4]
			8-11	Permit to Operate; Notification and Record Keeping [4]
			8-12	Air Quality Control Board; Appeals and Variances [4]
			8-13	Confidentiality Information [4]
			8-14	Dilution of Emission [4]
			8-15	Start-up, Shutdown, and Malfunction Condition [4]
			8-16	Actionable Rights; Violations Declared Public Nuisance [4]
			8-17	Emergency Condition [4]
			8-18	Rules for Controlling Emissions During Periods of High Air Pollution Potential [4]
			8-19	Penalties [4]
			8-20	Fees [4]
			18-85	Open Burning Restrictions [4]

This form does not apply to Magnitude 7 Metal's renewal application.

[3] Only federally enforced regulation
[4] Only local agency enforced regulation

MO 780-1519 (01-17)

FORM OP-B07 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B07.00 – APPLICABLE REQUIREMENTS CHECKLIST

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

OUTSTATE MISSOURI AREA

(NOTE: PLEASE INCLUDE FORM OP-B07.00 ONLY IF NOT LOCATED AT FOLLOWING LOCATIONS: CITY OF ST. LOUIS, JEFFERSON, FRANKLIN, ST. CHARLES, CLAY, CASS, BUCHANAN, RAY, JACKSON, PLATTE, AND GREENE COUNTIES)

1. CORE REQUIREMENTS

TITLE	ORGANIZATION
10 CSR 10-3.030	Open Burning Restrictions [1]
10 CSR 10-3.090	Restrictions of Emission of Odors [2]

2. APPLICABLE REQUIREMENTS

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
	X	E	10 CSR 10-3.010	Auto Exhaust Emission Controls [1]
	X	B	10 CSR 10-3.160	Restriction of Emission of Fluorides From Diammonium Phosphate Fertilizer Production [1]

[1] Federal, state and local agency enforceable regulation
[2] State and local agency enforceable regulation

FORM OP-B08 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B08.00 – APPLICABLE REQUIREMENTS CHECKLIST

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

SPRINGFIELD - GREENE COUNTY AREA
(NOTE: PLEASE INCLUDE FORM OP-B08.00 IF LOCATED WITHIN GREENE COUNTY)

1. STATE ADMINISTRATIVE PERMIT REQUIREMENTS

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
	X	J	10 CSR 10-4.140	Time Schedule for Compliance[1]

2. CORE PERMIT REQUIREMENTS

TITLE	ORGANIZATION
10 CSR 10-4.070	Restriction of Emission of Odors [2]
10 CSR 10-4.090	Open Burning Restrictions [1]

3. APPLICABLE REQUIREMENTS

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		

[1] Federal, state and local agency enforceable regulation.
[2] State and local agency enforceable regulation.

This form does not apply to Magnitude 7 Metal's renewal application.

FORM OP-B09 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B			
B09.00 – APPLICABLE REQUIREMENTS CHECKLIST			
INSTALLATION NAME Magnitude 7 Metals, LLC	FIPS 143	PLANT NUMBER 0008	YEAR SUBMITTED 2019

CITY OF SPRINGFIELD, AIR POLLUTION CONTROL AUTHORITY
LOCAL ORDINANCES
(NOTE: PLEASE INCLUDE FORM OP-B09.00 IF LOCATED WITHIN THE CITY LIMITS OF SPRINGFIELD, MISSOURI.)

APPLICABILITY			ARTICLE, DIVISION	ORGANIZATION
YES	NO	REASON		
			Article I	In General[4]
			Article II	Administration and Enforcement[4]
			Article II, Division 1	Generally[4]
			Article II, Division 2	Approval of Planned Installations[4]
			Article II, Division 3	Submission of Information[4]
			Article II, Division 4	Hearings[4]
			Article II, Division 5	Service of Orders or Notices[4]
			Article II, Division 6	Enforcement[4]
			Article II, Division 7	Test Methods and Tables[4]
			Article II, Division 8	Stack Emission Test Method[4]
			Article III	Emission Restrictions[4]
			Article III, Division 1	Generally[4]
			Article III, Division 2	Visible Air Contaminants from Equipment[4]
			Article III, Division 3	Particulate Matter from Fuel Burning Equipment[4]
			Article III, Division 4	Particulate Matter From Industrial Processes[4]
			Article IV	Open Burning[4]
			Article V	
			Article V	
			Article V	
			Article V	
			Article IX	Breakdown of Equipment[4]
			Article X	Circumvention[4]

This form does not apply to Magnitude 7 Metal's renewal application.

APPLICABILITY			ARTICLE, SECTION	THE BELOW CITY OF SPRINGFIELD ORDINANCE SECTIONS HAVE BEEN RESCINDED FROM THE CITY'S CODE, BUT ARE STILL IN THE SIP AND ARE FEDERALLY ENFORCEABLE
YES	NO	REASON		
			Article I, §2A-2	Definitions.
			Article VII, §2A-25	Stack emission test methods in general. [3]
			Article IX, §2A-34	Prohibition of single chamber incinerators. [3]
			Article IX, §2A-35	Maximum emission limitations from incinerators. [3]
			Article IX, §2A-36	Determination of burning capacity of an incinerator. [3]
			Article IX, §2A-37	Determination of particulate matter emitted from an incinerator. [3]
			Article IX, §2A-38	Time limit for existing incinerators to be brought into compliance. [3]
			Article XX, §2A-51	ASTM test method C-24-56, being a method of testing for "Pyrometric Cone Equivalent (PCE) of Refractory Materials." [3]
			Article XX, §2A-55	ASTM method PTC-21-1941 on "Dust Separating Apparatus." [3]
			Article XX, §2A-56	ASTM method PTC-27-1957 on "Determining Dust Concentration in a Gas Stream." [3]

[3] Only federally enforced regulation
[4] Only local agency enforced regulation

FORM OP-B10 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B10.00 – APPLICABLE REQUIREMENTS CHECKLIST

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

ST. LOUIS METROPOLITAN AREA
(NOTE: PLEASE INCLUDE FORM OP-B10.00 IF LOCATED WITHIN: CITY OF ST. LOUIS AREA; AND COUNTIES: ST. CHARLES, JEFFERSON, ST. LOUIS AND FRANKLIN)

1. STATE ADMINISTRATIVE PERMIT REQUIREMENTS

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
	X	J	10 CSR 10-5.130	Certain Coals to be washed [1]
	X	J	10 CSR 10-5.250	Time Schedule for Compliance [1]
	X	J	10 CSR 10-5.375	Motor Vehicle Emission Inspection Waiver [2]
	X	J	10 CSR 10-5.380	Motor Vehicle Emissions Inspection [1]
	X	J	10 CSR 10-5.480	Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded, or Approved Under Title 23 U.S.C. or the Federal Transit Laws [1]

2. CORE PERMIT REQUIREMENTS

TITLE	ORGANIZATION
10 CSR 10-5.070	Open Burning Restrictions [1]
10 CSR 10-5.160	Control of Odors in the Ambient Air [2]

3. APPLICABLE REQUIREMENTS

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
			10 CSR 10-5.	
			10 CSR 10-5.	
			10 CSR 10-5.	uel Oil) to be Provided and
			10 CSR 10-5.170	Control of Odors From Processing of Animal Matter [2]
			10 CSR 10-5.220	Control of Petroleum Liquid Storage, Loading and Transfer [1]
			10 CSR 10-5.240	Additional Air Quality Control Measures May be Required When Sources Are Clustered in a Small Land Area [1]
			10 CSR 10-5.290	More Restrictive Emission Limitations for Particulate Matter in the South St. Louis Area [1]
			10 CSR 10-5.295	Control of Emissions From Aerospace Manufacture and Rework Facilities [1]
			10 CSR 10-5.300	Control of Emissions From Solvent Metal Cleaning [1]
			10 CSR 10-5.310	Liquefied Cutback Asphalt Paving Restricted [1]
			10 CSR 10-5.330	Control of Emissions From Industrial Surface Coating Operations [1]
			10 CSR 10-5.340	Control of Emissions From Rotogravure and Flexographic Printing Facilities [1]
			10 CSR 10-5.350	Control of Emissions From Manufacture of Synthesized Pharmaceutical Products [1]
			10 CSR 10-5.360	Control of Emissions From Polyethylene Bag Sealing Operations [1]
			10 CSR 10-5.370	Control of Emissions From the Application of Deadeners and Adhesives [1]
			10 CSR 10-5.375	Motor Vehicle Emission Inspection Waiver
			10 CSR 10-5.380	Motor Vehicle Emissions Inspection
			10 CSR 10-5.390	Control of Emissions From Manufacture of Paints, Varnishes, Lacquers, Enamels and Other Allied Surface Coating Products [1]
			10 CSR 10-5.410	Control of Emissions From Manufacture of Polystyrene Resin [1]
			10 CSR 10-5.420	Control of Equipment Leaks From Synthetic Organic Chemical and Polymer Manufacturing Plants [1]
			10 CSR 10-5.430	Control of Emissions From the Surface Coating of Chrome-Plated and Resist Plastic Parts [2]
			10 CSR 10-5.440	Control of Emissions From Bakery Ovens [1]
			10 CSR 10-5.442	Control of Emissions From Lithographic Printing Operations [1]
			10 CSR 10-5.450	Control of VOC Emissions From Traffic Coatings [1]
			10 CSR 10-5.451	Control of Emissions From Aluminum Foil Rolling [1]
			10 CSR 10-5.455	Control of Emissions From Solvent Cleanup Operations [1]
			10 CSR 10-5.490	Municipal Solid Waste Landfills [1]

This form does not apply to Magnitude 7 Metal's renewal application.

[1] Federal, state and local agency enforceable regulation
[2] State and local agency enforceable regulation
[3] Only federally enforced regulation

FORM OP-B10 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B10.00 – Applicable Requirements Checklist

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

ST. LOUIS METROPOLITAN AREA (CONTINUED)

(NOTE: PLEASE INCLUDE FORM OP-B10.00 IF LOCATED WITHIN: CITY OF ST. LOUIS AREA, AND COUNTIES: ST. CHARLES, JEFFERSON, ST. LOUIS, AND FRANKLIN)

3. APPLICABLE REQUIREMENTS

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
			10 CSR 10-5.500	Control of Emissions From Volatile Organic Liquid Storage [1]
			10 CSR 10-5.510	Control of Emissions of Nitrogen Oxides [1]
			10 CSR 10-5.520	Control of Volatile Organic Compound Emissions From Existing Major Sources [1]
			10 CSR 10-5.530	Control of Volatile Organic Compound Emissions From Wood Furniture Manufacturing Operations [1]
			10 CSR 10-5.540	Control of Emissions From Batch Process Operations [1]
			10 CSR 10-5.550	Control of Volatile Organic Compound Emissions From React or Processes and Distillation Operations Processes in the Synthetic Organic Chemical Manufacturing Process [1]

[1] Federal, state and local agency enforceable regulation
[2] State and local agency enforceable regulation

This form does not apply to Magnitude 7 Metal's renewal application.

FORM OP-B11 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B			
B11.00 – APPLICABLE REQUIREMENTS CHECKLIST			
INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

ST. LOUIS COUNTY DEPARTMENT OF HEALTH, AIR, LAND, & WATER BRANCH
AIR POLLUTION CONTROL SECTION CHAPTER 612 – AIR POLLUTION CONTROL CODE
ST. LOUIS COUNTY LOCAL ORDINANCES
(NOTE: PLEASE INCLUDE FORM OP-B11.00 IF LOCATED WITHIN ST. LOUIS COUNTY.)

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
			612.010	Short Title [4]
			612.020	Scope [4]
			612.030	Definitions [4]
			612.040	Air Quality Standards and Air Pollution Control Regulations [4]
			612.050	Enforcement, By Whom [4]
			612.060	Director of Air Pollution – Duties [4]
			612.070	Appeal Board Establishment [4]
			612.080	Duties of Appeal Board [4]
			612.090	Board of Consider Appeal [4]
			612.100	Emergency Abatement of Violation-Procedure [4]
			612.110	Permits Required [4]
			612.120	Permits to be Visibly Affixed or Placed [4]
			612.130	Permit to sell or rent [4]
			612.140	Transfer [4]
			612.150	[illegible] [4]
			612.160	[illegible] o Construct and Operating Permits [4]
			612.170	
			612.180	
			612.190	Cancellation of Authority to Construct [illegible]
			612.200	Testing Prior to granting of Operating Permits [4]
			612.210	Action on Application for Permits [4]
			612.220	Suspension or Revocation of Permits [4]
			612.230	Suspension or Revocation of Operating Permits or Authority to Construct, Board Hearing, Stay of Action [4]
			612.240	Surrender of Permits [4]
			612.250	Fees, When Payable, Exceptions [4]
			612.260	Permit Fees; Schedules [4]
			612.270	Permit Fees; Refund [4]
			612.280	Testing by order of the Board [4]
			612.290	Right of Entry; Inspections; Samples [4]
			612.300	Variances [4]
			612.305	Variances Granted by Director [4]
			612.310	Upset Conditions, Breakdown, or Scheduled Maintenance [4]
			612.320	Service of Notice [4]
			612.330	Reports of Division Technical Experts; Presumptive Evidence of Facts [4]
			612.335	Permitted Hours of Incinerator Operation [4]
			612.340	Air Pollution Nuisances Prohibited [4]
			612.350	Disclosure of Secret Processes Prohibited [4]
			612.360	Disclosure of Secret Processes Prohibited. Penalty for [4]
			612.370	False or Misleading Oral Statements; Unlawful Reproduction or Alteration of Documents [4]
			612.380	Interfering with or Obstructing Division Personnel [4]
			612.390	Penalties for Violation [4]
			612.400	Construction [4]
			612.410	Incinerators [4]
			612.420	Incinerator Stack; Emergency Vent Stack Use [4]
			612.430	Recycling Requirements for Incineration of Waste [4]
			612.440	Preparation and Submission of Plan for Recycling [4]
			612.450	Use of Recycled Goods in Lieu of Recycling [4]

This form does not apply to Magnitude 7 Metal's renewal application.

[4] Only Local Agency Enforced Regulation

MO 780-1519 (01-17)

FORM OP-B11 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B			
B11.00 – APPLICABLE REQUIREMENTS CHECKLIST			
INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

ST. LOUIS COUNTY DEPARTMENT OF HEALTH, AIR, LAND, & WATER BRANCH
AIR POLLUTION CONTROL SECTION CHAPTER 612 – AIR POLLUTION CONTROL CODE
ST. LOUIS COUNTY LOCAL ORDINANCES (CONTINUED)
(NOTE: PLEASE INCLUDE FORM OP-B11.00 IF LOCATED WITHIN ST. LOUIS COUNTY.)

APPLICABILITY			TITLE	ORGANIZATION
YES	NO	REASON		
			612.460	Use of Reusable Materials in Lieu of Recycling [4]
			612.470	Approval of Plan for Recycling [4]
			612.480	Modification of Existing Plan [4]
			612.490	Appeal from Decision of Director Disapproving Plan [4]
			612.500	Compliance with Plan [4]
			612.510	"Recyclable" Defined [4]
			612.520	Reduction in Quantity of Waste Prior to Incineration [4]
			612.530	Saint Louis County Department of Health Asbestos Abatement Rules and Regulations – Registration, Notification, and Performance Requirements [4]

[4] Only Local Agency Enforced Regulation

This form does not apply to Magnitude 7 Metal's renewal application.

FORM OP-B12 – APPLICABLE REQUIREMENTS CHECKLIST – SECTION B

B12.00 – Applicable Requirements Checklist

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

CITY OF ST. LOUIS, DIVISION OF AIR POLLUTION CONTROL
ST. LOUIS CITY ORDINANCES
(NOTE: PLEASE INCLUDE FORM OP-B12.00 IF LOCATED WITHIN ST. LOUIS CITY.)

APPLICABILITY			TITLE ORDINANCE 64749 SECTION	ORGANIZATION (INCLUDES ORDINANCE 65108: AMENDED SECTIONS 16 AND 24 AND ORDINANCE 65488: AMENDED SECTION 26)
YES	NO	REASON		
			1	Adoption [4]
			2	Name [4]
			3	Policy Statement [4]
			4	Statement of Delegated Authority [4]
			5	Division Re-established [4]
			6	Continuation of Existing Actions [4]
			7	Definitions [3]
			8	Commissioner Qualifications [4]
			9	Commissioner Powers and Duties [4]
			10	Board of Appeals and Variance Review [4]
			11	
			12	eration and Demolition Plans [4]
			13	
			14	Source-Specific Emergency Procedures
			15	Air Pollution Nuisance Prohibited [4]
			16	Restrictions of Emission of Visible Air Contaminants [4]
			17	Open Burning Restrictions [3]
			18	Incinerators [4]
			19	Prevention of Airborne Particulate Matter [4]
			20	Abrasive Blasting [4]
			21	Source Registration Permits Required [4]
			22	Inspection, Disclosure, and Submittal of Requested Information [4]
			23	Cooperation of Local Government Agencies Required [4]
			24	Enforcement [4]
			25	Upset Conditions, Breakdowns, or Scheduled Maintenance [4]
			26	Performance Based Fee Schedule [4]
			27	Severability [4]
			28	Penalty Clause [4]
			29	Section Sixteen, C. Effective Date [4]
			30	Emergency Clause [4]

This form does not apply to Magnitude 7 Metal's renewal application.

[3] Only Federally Enforced Regulation
[4] Only Local Agency Enforced Regulation

MO 780-1519 (01-17)

FORM OP-C01 – INSIGNIFICANT ACTIVITIES REQUIRED TO BE LISTED – SECTION C

C01.00 – INSIGNIFICANT ACTIVITIES

NOTE: For Part 70 applications only.

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

INSIGNIFICANT ACTIVITY	POTENTIAL ESTIMATED EMISSIONS (TONS/YR)						
EMISSION UNIT ID: Heaters	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAPS
DESCRIPTION: Multiple Space Heaters, natural gas fired, less than 10 MMBtu/hour each	<1 each	<1 each	<5 each	<1 each	<5 each	0	<1 each
EMISSION UNIT ID: N/A	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAPS
DESCRIPTION: Paved Haul Roads	<15						
EMISSION UNIT ID: Engines	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAPS
DESCRIPTION: Non-stationary, temporary diesel-powered engines	<15	<40	<40	<40	<100	<0.6	
EMISSION UNIT ID	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAPS
DESCRIPTION							
EMISSION UNIT ID	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAPS
DESCRIPTION							
EMISSION UNIT ID	PM_{10}	SO_X	NO_X	VOC	CO	LEAD	HAPS
DESCRIPTION							

Insignificant Activities calculations are included as Attachment 2.

DUPLICATE THIS FORM AS NEEDED

MO 780-1519 (01-17)

FORM OP-D01 – EXISTING PLANT-WIDE CONDITIONS – SECTION D

D01.00 – EXISTING PLANT-WIDE CONDITIONS

NOTE: Include a blank form when no existing plant-wide conditions are applicable.

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

Please list in the space provided below any permit conditions which are currently applicable on a plant wide basis: (e.g., Production is limited to 10,000 units per 12 month rolling average, or a limit on the installation's hours of operation)

PERMIT NO.	APPLICABLE PERMIT CONDITION
OP2001032	All current Part 70 permit conditions are incorporated by reference, except as noted on form OP-F01.
OP2001033	
OP2001062	
OP2001066	
	The following construction permits are incorporated by reference:
0298-001	**0298-001**: Replacement of existing batch mixers for anode paste with continuous mixer and the replacement of the existing hydraulic press anode mold with a turntable vibratory anode former.
102004-001	**102004-001A**: Increase in aluminum production at an existing primary aluminum plant. Original permit was revised to change SOx and CO emission limits.
122007-005	
032008-009	**122007-005**: "Rod Mill #2"; Installation of two (2) 80,000 pound holding furnaces with a maximum heat input of 20 million BTU per hour each.
042013-011	
	032008-009: Installation of new 125 ton alumina storage bin (EP-115) and activation of shut down equipment (EP-51, 52, 53, and 54).
	042013-011: Construction of two (2) 220,000 pound rectangular tilting furnaces to supply molten aluminum for a new continuous cast rod mill.
	See Form OP-F01 General Comments for noted exceptions to incorporation by reference for construction permits.

PERMIT NO.	COMPLIANCE DEMONSTRATION METHOD	DESCRIBE METHOD AND GIVE REFERENCE
OP2001032	Incorporated by Reference	
OP2001033	Incorporated by Reference	
OP2001062	Incorporated by Reference	
OP2001066	Incorporated by Reference	
0298-001	Incorporated by Reference	
102204-001	Incorporated by Reference	
122007-005	Incorporated by Reference	
032008-009	Incorporated by Reference	
042013-011	Incorporated by Reference	

DUPLICATE THIS FORM AS NEEDED

MO 780-1519 (01-17)

FORM OP-D02 – PROPOSED PLANT-WIDE CONDITIONS – SECTION D

D02.00 – PROPOSED PLANT-WIDE CONDITIONS

NOTE: Include a blank form when no existing plant-wide conditions are applicable.

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

Please list in the space provided below any proposed permit conditions that the installation intends to establish in this operating permit.

PROPOSED CONDITION
N/A

Please describe what methodologies you intend to use to demonstrate compliance with each of the proposed plant-wide condition(s) that are being established above: (e.g., testing, monitoring and record keeping)

PROPOSED CONDITION NO.	COMPLIANCE DEMONSTRATION METHOD	DESCRIBE METHOD AND GIVE REFERENCE

DUPLICATE THIS FORM AS NEEDED

MO 780-1519 (01-17)

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU-5000 (No Construction permit required per MDNR 3/08/1999.	EP-DW	3-03-003-10

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Potline Crusher

DESCRIPTION OF EMISSION Shredder and associated conveyors for the sizing of spent carbon potliner as required by disposal facility.

MANUFACTURER	MODEL NO./SERIAL NO.
American Pulverizer	SH-1 (1-2 RPM)

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
approx 3 / 15 / 99	5 tons coal /hour

STACK NO.	TEMPERATURE	FLOW RATE
S-DW	77 °F	43,800 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	12.05 lb/hr
Opacity	10-6.220 Opacity Requirements	20%
PM_{10}	PSD Permit 102004-001A	3.75 lb/hr

This and the following D03.00 forms are provided for emission units which are not included in prior operating permits but have been included in this title V renewal. Each unit is subject to the Process Weight Rule and Opacity Requirements for new sources. Those noted are also either subject to existing PM_{10} limits from permit 102004-001, subject to existing Polycyclic Organic Matter requirements per 40 CFR Part 63 Subpart LL, or have conditions specified in Operating Permit 2001062 for EP-75 applied to them.

PM emission calculations are included in Appendix 4. These calculations use updated MHDR.

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5010, 5020, and 5030 (0298-001)	EP-71	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Screw Conveyors

DESCRIPTION OF EMISSION Screw conveyors for Anode Paste Production.

MANUFACTURER	MODEL NO./SERIAL NO.
Conveyor & Drive Equipment Co.	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-71	77 °F	1500 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%
PM_{10}	PSD Permit 102004-001A	0.13 lb/hr

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5040 and 5050 (0298-001)	EP-71	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Vibratory Feeders

DESCRIPTION OF EMISSION Vibratory feeders for Anode Paste Production.

MANUFACTURER	MODEL NO./SERIAL NO.
Morgensen	Model E-0548

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-71	77 °F	1500 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%
PM_{10}	PSD Permit 102004-001A	0.13 lb/hr

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5060 (0298-001)	EP-71	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Magnetic Separator

DESCRIPTION OF EMISSION Magnetic separator for Anode Paste Production.

MANUFACTURER	MODEL NO./SERIAL NO.
Eriez	Permanent magnetic drum Model HFP 15'x42"

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-71	77 °F	1500 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%
PM_{10}	PSD Permit 102004-001A	0.13 lb/hr

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5070 (0298-001)	EP-72	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Tramp Iron Separator

DESCRIPTION OF EMISSION Iron separator for Anode Paste Production.

MANUFACTURER	MODEL NO./SERIAL NO.
Tramp	TGH-2

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-72	77 °F	4000 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	**POLLUTANT(S) CONTROLLED**	**CONTROL EFFICIENCY**	**CAPTURE EFFICIENCY**
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%
PM_{10}	PSD Permit 102004-001A	0.34 lb/hr

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5100 (0298-001)	EP-100	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Rotary Lobe Blower

DESCRIPTION OF EMISSION Blower for Anode Paste Process

MANUFACTURER	MODEL NO./SERIAL NO.
Roots	Q-153

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-100	77 °F	12,000 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Coke Dry Scrubber (071)	PM, VOC	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	**POLLUTANT(S) CONTROLLED**	**CONTROL EFFICIENCY**	**CAPTURE EFFICIENCY**
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5110 (0298-001)	EP-100	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Air Veyor

DESCRIPTION OF EMISSION Air Veyor for Anode Paste Process

MANUFACTURER	MODEL NO./SERIAL NO.
N/A	Model C, Type 17

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-100	77 °F	12,000 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Coke Dry Scrubber (071)	PM, VOC	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5120 (0298-001)	EP-100	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Turntable vibrating compactor

DESCRIPTION OF EMISSION Compactor for Anode Paste Process

MANUFACTURER	MODEL NO./SERIAL NO.
KHD	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-100	77 °F	12,000 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Coke Dry Scrubber (071)	PM, VOC	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%
POM	40 CFR Part 63, Subpart LL	Route emissions through a dry coke scrubber; monitor coke and air flows.
NOTE: The applicable requirements from 40 CFR Part 63, Subpart LL from EP-75 in Operating Permit 2001062 have been applied to this emission unit. See Form F01.00 for explanation		

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5130 (0298-001)	EP-100	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Kneader

DESCRIPTION OF EMISSION Kneader for Anode Paste Process

MANUFACTURER	MODEL NO./SERIAL NO.
KO-KNEADER	K6000KE-9 5D/G160F

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-100	77 °F	12,000 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Coke Dry Scrubber (071)	PM, VOC	95 %	100 %
ADDITIONAL CONTROL DEVICE TYPE	**POLLUTANT(S) CONTROLLED**	**CONTROL EFFICIENCY**	**CAPTURE EFFICIENCY**
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%
POM	40 CFR Part 63, Subpart LL	Route emissions through a dry coke scrubber; monitor coke and air flows.
NOTE: The applicable requirements from 40 CFR Part 63, Subpart LL from EP-75 in Operating Permit 2001062 have been applied to this emission unit. See Form F01.00 for explanation		

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5140 (0298-001)	EP-100	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Pitch Weigh Pot

DESCRIPTION OF EMISSION Pitch Weigh Pot for Anode Paste Process

MANUFACTURER	MODEL NO./SERIAL NO.
Fluidisastion	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-100	77 °F	12,000 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Coke Dry Scrubber (071)	PM, VOC	95 %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5150, 5160 (0298-001)	EP-100	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Pitch Pumps

DESCRIPTION OF EMISSION Pitch Pumps for Anode Paste Process

MANUFACTURER	MODEL NO./SERIAL NO.
Victor	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-100	77 °F	12,000 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Coke Dry Scrubber (071)	PM, VOC	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5200 (0298-001)	EP-101	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Slide Gate

DESCRIPTION OF EMISSION Slide Gate for Fraction Handling

MANUFACTURER	MODEL NO./SERIAL NO.
Rotolok	16" square

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-101	77 °F	4700 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5210, 5220, 5230, 5240, 5250, 5260 (0298-001)	EP-101	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Screw Conveyors

DESCRIPTION OF EMISSION Screw Conveyors for Fraction Handling

MANUFACTURER	MODEL NO./SERIAL NO.
Conveyor & Drive Equipment Co.	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-101	77 °F	4700 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	**POLLUTANT(S) CONTROLLED**	**CONTROL EFFICIENCY**	**CAPTURE EFFICIENCY**
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5270 (0298-001)	EP-101	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Air Veyor

DESCRIPTION OF EMISSION Air Veyor for Fraction Handling

MANUFACTURER	MODEL NO./SERIAL NO.
Peters Jet Conveyor	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-101	77 °F	4700 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	**POLLUTANT(S) CONTROLLED**	**CONTROL EFFICIENCY**	**CAPTURE EFFICIENCY**
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5300, 5310 (0298-001)	EP-102	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Screw Conveyors

DESCRIPTION OF EMISSION Screw Conveyors for Proportioning System

MANUFACTURER	MODEL NO./SERIAL NO.
Conveyor & Drive Equipment Co.	16"x32'1/4"

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-102	77 °F	4700 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5320 (0298-001)	EP-102	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Bucket Elevator

DESCRIPTION OF EMISSION Bucket Elevator for Proportioning System

MANUFACTURER	MODEL NO./SERIAL NO.
Webb	MHE Belt Type

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-102	77 °F	4700 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5330 (0298-001)	EP-102	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Preheating Screw Conveyor

DESCRIPTION OF EMISSION Preheating Screw Conveyor for Proportioning System

MANUFACTURER	MODEL NO./SERIAL NO.
N/A	Type Q2424-8"

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-102	77 °F	4700 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5400 (0298-001)	EP-108	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Phase 1 & 2 Rod Brush Station

DESCRIPTION OF EMISSION Phase 1 & 2 Rod Brush Station

MANUFACTURER	MODEL NO./SERIAL NO.
Aisco	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-108	77 °F	1000 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	**POLLUTANT(S) CONTROLLED**	**CONTROL EFFICIENCY**	**CAPTURE EFFICIENCY**
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.00 – GENERAL EMISSION UNITS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
EU5410 (0298-001)	EP-109	3-03-003-12

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION Phase 3 Rod Brush Station

DESCRIPTION OF EMISSION Phase 3 Rod Brush Station

MANUFACTURER	MODEL NO./SERIAL NO.
Aisco	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
March 2000	40 tons/hour

STACK NO.	TEMPERATURE	FLOW RATE
S-109	77 °F	1000 ft^3/min

2. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
Baghouse (018)	PM	Constant grain loading %	100 %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A		%	%

3. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (CSR#, CFR#, PERMIT NO., ETC.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
PM	10-6.400 Process Weight Rule	42.53 lb/hr
Opacity	10-6.220 Opacity Requirements	20%

DUPLICATE THIS FORM AS NEEDED

FORM OP - D03 EMISSION UNIT INFORMATION

Facility Name	County No.	Plant No.	Year of Data
Noranda Aluminum, Inc.	FIPS 143	0008	1997

Emission Point No.	Emission Unit No.	Source Classification Code (SCC)
EP-24	EU-24-01	30300001

1. Emission Unit(s) Information

Description of Unit(s)	Manufacturer, Model No., Date of Manufacture	Stack IDs	Maximum Design Rate/Capacity
Bucket Elevator with Motor	The Ehrsam Co., 1970	S-24	5.48 tons/hr

Will this unit be operated under an alternate operating scenario?

○ Yes ◉ No *If Yes, you must complete a separate Secion D.2 on FORM OP - D03 for each scenario.*

Total Maximum Design Rate/Capacity: 5.48 tons/hr

2. Alternate Operating Scenario (Flexibility)

Alternate Scenario ID:	SIC Code Associated with Scenario:

Description

3. Voluntary Permit Conditions *for reducing potential emissions, conditions will become federally enforceable*

Condition(s) Requested	Description	Limitation	Pollutant Controlled

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.10 – BOILERS, FURNACES AND OTHER INDIRECT HEATING SOURCES

INSTALLATION NAME	FIPS	PLANT NUMBER	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER	SOURCE CLASSIFICATION CODE

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION UNIT

DESCRIPTION OF EMISSION UNIT

MANUFACTURER

NO.

CONSTRUCTION DATE

MM BTU/hr

Operating Permits OP2001032, OP2001033, OP2001062, and OP2001066 are incorporated by reference, except as noted on general comments form OP-F01.

2. FUEL DATA

PRIMARY FUEL TYPE AND GRADE	MAXIMUM SULFUR CONTENT
	%
SECONDARY FUEL TYPE AND GRADE	MAXIMUM SULFUR CONTENT
	%

3. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY
		%
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY
		%

4. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (e.g, CSR#, CFR#, PERMIT NO.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)

See Attachment 3 – Summary of Applicable Requirements for a summary of all Emission Units, their applicable requirements, and an emission limit or standard.

DUPLICATE THIS FORM AS NEEDED

MO 780-1519 (01-17)

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.20 – COMBUSTION TURBINES AND INTERNAL COMBUSTION ENGINES

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
N/A	N/A	N/A

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION UNIT

N/A

DESCRIPTION OF EMISSION UNIT:

N/A

MANUFACTURER	MODEL NO./SERIAL NO.
N/A	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE	
	N/A	MM BTU/hr

DESIGN RATED POWER OUTPUT	UNITS	MAXIMUM OPERATIONAL POWER OUTPUT	UNITS
N/A		N/A	N/A

2. FUEL DATA

PRIMARY FUEL TYPE AND GRADE	MAXIMUM SULFUR CONTENT	
N/A	N/A	%
SECONDARY FUEL TYPE AND GRADE	MAXIMUM SULFUR CONTENT	
N/A	N/A	%

3. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	
N/A	N/A	N/A	%
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	
N/A	N/A	N/A	%

4. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (e.g., CSR#, CFR#, PERMIT NO.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
N/A	N/A	N/A

DUPLICATE THIS FORM AS NEEDED

MO 780-1519 (01-17)

FORM OP-D03 – EMISSION UNIT INFORMATION – SECTION D

D03.30 – SPRAY BOOTHS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)
N/A	N/A	N/A

1. EMISSION UNIT DESCRIPTION

INSTALLATION'S NAME FOR THIS EMISSION UNIT
N/A

DESCRIPTION OF EMISSION UNIT
N/A

MANUFACTURER	MODEL NO./SERIAL NO.
N/A	N/A

CONSTRUCTION DATE	MAXIMUM HOURLY DESIGN RATE
	N/A GALLONS/HR

STACK NO.	TEMPERATURE	FLOW RATE
N/A	N/A °F	N/A FT^3/MIN

2. COATING DATA

COATING NAME WITH HIGHEST DENSITY	DENSITY
N/A	N/A POUNDS/GALLON
COATING NAME WITH HIGHEST PERCENT SOLIDS BY WEIGHT	PERCENT SOLIDS BY WEIGHT
N/A	N/A %
COATING APPLICATION METHOD	TRANSFER EFFICIENCY
N/A	N/A %
ALTERNATE COATING APPLICATION METHOD	ALTERNATE TRANSFER EFFICIENCY
N/A	N/A %

3. ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT

CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A	N/A	N/A %	N/A %
ADDITIONAL CONTROL DEVICE TYPE	POLLUTANT(S) CONTROLLED	CONTROL EFFICIENCY	CAPTURE EFFICIENCY
N/A	N/A	N/A %	N/A %

4. APPLICABLE REQUIREMENTS

POLLUTANT	APPLICABLE REQUIREMENT AUTHORITY (e.g., CSR#, CFR#, PERMIT NO.)	EMISSION LIMIT OR STANDARD (INCLUDING UNITS)
N/A	N/A	N/A

DUPLICATE THIS FORM AS NEEDED

FORM OP-D04 – ALTERNATE OPERATING SCENARIO/VOLUNTARY CONDITIONS – SECTION D

D04.00 – ALTERNATE OPERATING SCENARIO/VOLUNTARY CONDITIONS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)

1. ALTERNATE OPERATING SCENARIO (FLEXIBILITY)

ALTERNATE SCENARIO ID	SIC CODE ASSOCIATED WITH SCENARIO

DESCRIPTION

This form does not apply to Magnitude 7 Metal's renewal application.

2. VOLUNTARY PERMIT CONDITIONS

POLLUTANT CONTROLLED	LIMITATION

DUPLICATE THIS FORM AS NEEDED

MO 780-1519 (01-17)

FORM OP-D05 – COMPLIANCE DETERMINATION METHODS – SECTION D

D05.00 – COMPLIANCE DETERMINATION

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

EMISSION UNIT ID	EIQ REFERENCE NUMBER (ID)	SOURCE CLASSIFICATION CODE (SCC)

1. APPLICABLE REQUIREMENT

APPLICABLE REQUIREMENT	POLLUTANT(S)

EMISSION LIMITATION OR STANDARD

2. TESTING

DATE	TEST METHOD

SUMMARY

Applicable requirements, testing, monitoring, record keeping, and reporting requirements are all incorporated by reference from operating permits OP2001032, OP2001033, OP2001062, and OP2001066; construction permits 0298-0001, 042013-011, 122007-005, and 032008-009; and PSD Permit 102004-001. See Attachment 3 for a summary of applicable requirements by emission unit and Attachment 4 for a summary of the 40 CFR Part 64 Compliance Assurance Monitoring requirements.

3. MONITORING

PARAMETER MONITORED	MONITORING METHOD

MONITORING SCHEDULE

4. RECORD KEEPING

PARAMETER RECORDED	RECORD KEEPING METHOD

RECORD KEEPING SCHEDULE

5. REPORTING

REPORTING REQUIREMENT	REPORTING SCHEDULE

DUPLICATE THIS FORM AS NEEDED

MO 780-1519 (01-17)

D06.00 – CORE PERMIT REQUIREMENTS (NOTE: THIS IS A REQUIRED FORM FOR ALL PERMIT APPLICATIONS)

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

NOTE: The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the code of federal regulations and code of state regulations for the full text of the applicable requirements.

10 CSR 10-6.050, *Start-up, Shutdown and Malfunction Conditions*

(a) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days in writing the following information:
   (1) Name and location of installation.
   (2) Name and telephone number of person responsible for the installation.
   (3) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
   (4) Identity of the equipment causing the excess emissions.
   (5) Time and duration of the period of excess emissions.
   (6) Cause of the excess emissions.
   (7) Air pollutants involved.
   (8) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude.
   (9) Measures taken to mitigate the extent and duration of the excess emissions.
   (10) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.

(b) The permittee shall submit the paragraph (a.) information list to the director in writing at least 10 days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given 10 days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within 10 working days.

(c) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph (a.) list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.

(d) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.

(e) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060, *Construction Permits Required*

The permittee shall not commence construction, modification or major modification of any installation subject to this rule; begin operation after that construction, modification or major modification; or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065, *Operating Permits*

The permittee shall file for renewal of this operating permit no sooner than eighteen months, nor later than six months, prior to the expiration date of this operating permit. The permittee shall retain the most current operating permit issued to this installation on-site and shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*
40 CFR Part 61 Subpart M, National Emission Standard for Asbestos

(a) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

(b) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the code of federal regulations and code of state regulations for the full text of the applicable requirements.

10 CSR 10-6.100, *Alternate Emission Limits*

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

10 CSR 10-6.110, *Submission of Emission Data, Emission Fees and Process Information*

(a) The permittee shall complete and submit an Emission Inventory Questionnaire, or EIQ, in accordance with the requirements outlined in this rule.
(b) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
(c) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the EIQ form or equivalent approved by the director.

10 CSR 10-6.130, *Controlling Emissions During Episodes of High Air Pollution Potential*

This rule specifies the conditions that establish an air pollution alert (yellow/red), watch or emergency and the associated procedures and emissions reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the director.

10 CSR 10-6.150, Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170, Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

(a) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line or origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
(b) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
(c) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary.

10 CSR 10-6.180, *Measurement of Emissions of Air Contaminants*

(a) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
(b) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
(c) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-6.250, *Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements*

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the department's Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the department's Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

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The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the code of federal regulations and code of state regulations for the full text of the applicable requirements.

Yes	No	Regulation *(Please check the appropriate response regarding applicability)*
	✓	**10 CSR 10-2.070** (Kansas City Metropolitan Area)
✓		**10 CSR 10-3.090** (Outstate Area)
	✓	**10 CSR 10-4.070** (Greene County)

Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of 1 hour.

This requirement is not federally enforceable.

10 CSR 10-5.160, *(Not Applicable if not in St. Louis Metropolitan* Area) ***Restriction of Emission of Odors***

No person shall emit odorous matter as to cause an objectionable odor on or adjacent to:

(a) Residential, recreational, institutional, retail sales, hotel or educational premises.
(b) Industrial premises when air containing odorous matter is diluted with 20 or more volumes of odor-free air; or
(c) Premises other than those in paragraphs (1)A.1. and (2) of the rule when air containing odorous matter is diluted with four or more volumes of odor-free air.

The previously mentioned requirement shall apply only to objectionable odors. An odor will be deemed objectionable when 30 percent or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy; the sample size to be at least 20 people or 75 percent of those exposed if fewer than 20 people are exposed.

This requirement is not federally enforceable.

10 CSR 10-6.280, *Compliance Monitoring Usage*

(a) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
  (1) Monitoring methods outlined in 40 CFR Part 64.
  (2) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit.
  (3) Any other monitoring methods approved by the director.
(b) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
  (1) Monitoring methods outlined in 40 CFR Part 64.
  (2) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit.
  (3) Compliance test methods specified in the rule cited as the authority for the emission limitations.
(c) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
  (1) Applicable monitoring or testing methods, cited in:
    - 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources".;
    - 10 CSR 10-6.040, "Reference Methods".
    - 10 CSR 10-6.070, "New Source Performance Standards".
    - 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants".
  (2) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the code of federal regulations and code of state regulations for the full text of the applicable requirements.

10 CSR 10-5.040, *(Delete if not in St. Louis Metropolitan* Area) ***Use of Fuel in Hand-Fired Equipment Prohibited***
It shall be unlawful to operate any hand-fired fuel-burning equipment in the St. Louis, Missouri metropolitan area. This regulation shall apply to all fuel-burning equipment including, but not limited to, furnaces, heating and cooking stoves and hot water furnaces. It shall not apply to wood-burning fireplaces and wood-burning stoves in dwellings, nor to fires used for recreational purpose, nor to fires used solely for the preparation of food by barbecuing. Hand-fired fuel-burning equipment is any stove, furnace, or other fuel-burning device in which fuel is manually introduced directly into the combustion chamber.

Yes	No	Regulation *(Please check the appropriate response regarding applicability)*
	✓	**10 CSR 10-2.100** (Kansas City Metropolitan Area)
✓		**10 CSR 10-3.030** (Outstate Area)
	✓	**10 CSR 10-4.090** (Greene County)
	✓	**10 CSR 10-5.070** (St. Louis Metropolitan Area)

Open Burning Restrictions
(a) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
(b) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
(c) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
  (1) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known.
  (2) The schedule of burning operations.
  (3) The exact location where open burning will be used to dispose of the trade wastes.;
  (4) Reasons why no method other than open burning is feasible.
  (5) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
(d) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt the installation from the provisions of any other law, ordinance or regulation.
(e) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

St. Louis City Ordinance 64749, Sec 17, *(Not Applicable if not in City Limits of St. Louis City)* **Open Burning Restrictions**
(a) No person shall cause, suffer, allow or permit the open burning of refuse.
(b) No person shall conduct, cause or permit the conduct of a salvage operation by open burning.
(c) No person shall conduct, cause or permit the disposal of trade waste by open burning.
(d) No person shall cause or permit the open burning of leaves, trees or the byproducts therefrom, grass, or other vegetation.
(e) It shall be prima-facie evidence that the person who owns or controls property on which open burning occurs, has caused or permitted said open burning.

10 CSR 10-5.240, *(Not Applicable if not in St. Louis Metropolitan* Area) ***Additional Air Quality Control Measures May be Required When Sources Are Clustered in a Small Land Area***
The Air Conservation Commission may prescribe more restrictive air quality control requirements that are more restrictive and more extensive than provided in regulations of general application for:
  (a) Areas in which there are one or more existing sources and/or proposed new sources of particulate matter in any circular area with a diameter of two miles (including sources outside metropolitan area) from which the sum of particulate emissions allowed from these sources by regulations of general application are or would be greater than 2000 tons per year or 500 pounds per hour.
  (b) Areas in which there are one or more existing sources and/or proposed new sources of sulfur dioxide in any circular area with a diameter of two miles from which the sum of sulfur dioxide emissions from these sources allowed by regulations of general application are or would be greater than 1000 tons for any consecutive three months or 1000 pounds per hour."

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The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the code of federal regulations and code of state regulations for the full text of the applicable requirements.

Title VI – 40 CFR Part 82, *Protection of Stratospheric Ozone*

(a) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  (1) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
  (2) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
  (3) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
  (4) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

(b) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR part 82, Subpart F, except as provided for motor vehicle air conditioners, or MVACs, in Subpart B:
  (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
  (2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
  (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
  (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
  (5) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
  (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

(c) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

(d) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner, the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.
Federal Only - 40 CFR part 82

FORM OP-E01 – COMPLIANCE PLAN/STATUS – SECTION E

E01.00 – COMPLIANCE PLAN/STATUS

INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

Completion of this form of the operating permit forms package is mandatory for all sources. Complete this form once for each application.

1. COMPLIANCE STATUS WITH ALL APPLICABLE REQUIREMENTS EFFECTIVE AT THE TIME OF THE ISSUANCE OF THIS PERMIT.

WILL YOUR INSTALLATION BE IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS AT THE TIME OF THE PERMIT ISSUANCE AND CONTINUE TO COMPLY WITH THESE REQUIREMENTS FOR THE DURATION OF THE PERMIT?

YES ☑ NO ☐ (IF NO, COMPLETE A COMPLIANCE PLAN AS DESCRIBED IN THE INSTRUCTIONS ON FORM OP–F01.00)

2. COMPLIANCE STATUS WITH ALL APPLICABLE REQUIREMENTS EFFECTIVE DURING THE PERMIT TERM.

WILL YOUR INSTALLATION BE IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS TAKING EFFECT DURING THE TERM OF THE PERMIT?

YES ☑ NO ☐ (IF NO, COMPLETE A COMPLIANCE PLAN AS DESCRIBED IN THE INSTRUCTIONS ON FORM OP–F01.00)

3. COMPLIANCE STATUS WITH ENHANCED MONITORING AND COMPLIANCE CERTIFICATION.

IS THE INSTALLATION IDENTIFIED IN THIS APPLICATION IN COMPLIANCE WITH ALL APPLICABLE ENHANCED MONITORING AND COMPLIANCE CERTIFICATION REQUIREMENTS?

YES ☑ NO ☐ (IF NO, COMPLETE A COMPLIANCE PLAN AS DESCRIBED IN THE INSTRUCTIONS ON FORM OP–F01.00)

4. SCHEDULE OF SUBMISSION OF COMPLIANCE CERTIFICATION DURING THE PERMIT TERM.

FREQUENCY OF SUBMITTALS	BEGINNING DATE
Annual Compliance Certifications	Ongoing

5. CERTIFICATION STATEMENT FOR PART 70 MINOR PERMIT MODIFICATIONS.

I hereby certify that this request for a permit modification meets the criteria described in 10 CSR 10-6.065(5)(e)5.b.(i) for minor permit modifications, and request that the minor permit modification procedures be followed.

SIGNATURE OF RESPONSIBLE OFFI: N/A: this is not an application for a minor permit modification.

6. CERTIFICATION OF COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS.

Except for requirements identified in the above statement for which compliance is not achieved, I hereby certify that, based on information and belief formed after reasonable inquiry, the air contaminant source identified in this application is in compliance with all applicable requirements.

SIGNATURE OF RESPONSIBLE OFFICIAL OF COMPANY	DATE
S. Rusche	1/9/19

TYPE OR PRINT NAME OF RESPONSIBLE OFFICIAL	OFFICIAL TITLE OF RESPONSIBLE OFFICIAL
Steve Rusche	COO

MO 780-1519 (01-17)

FORM OP-F01 – GENERAL COMMENTS – SECTION F			
F01.00 – GENERAL COMMENTS			
INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals, LLC	143	0008	2019

1. GENERAL INFORMATION

Reference Form OP-D01 – Existing Plant-wide conditions

Emission Unit which was in application for initial Title V permits but is not listed in current Operating permits:

EP-24 from the original application – Bucket Elevator with Motor - Fresh Ore Material Handling: This emission point was in the original application but was not incorporated into the issued Operating permits. A copy of the original OP-D03 form has been included with this renewal application. Magnitude 7 Metals requests that EU1300 be assigned to this equipment. It will be subject to the process weight rule, opacity limitations and CAM requirements.

Emission Units to be removed from renewal permit due to removal from service:

EP-75 Anode Paste Mixer Exhaust (EU3240, 3250, 3260, 3270) has been taken out of service at the facility. The anode paste mixer process referenced to EP-75 was replaced by EP-100 Anode Paste Process, EP-101 Fraction Handling, and EP-102 Proportioning System. The appropriate D03.00 Forms are included in this permit application for the emission units associated with these emission points. The applicable requirements from 40 CFR Part 63, Subpart LL from Operating Permit 2001062 have been applied to the new affected units under Subpart LL (EU5120 (Turntable Vibrating Compactor) and EU5130 (Kneader)). Applicable units were determined using 40 CFR Part 63, Subpart LL which defines paste production plant as "the processes whereby calcinated petroleum coke, coal tar pitch (hard or liquid), and/or other materials are mixed, transferred, and formed . . . into green anodes for a prebake process. This definition includes all operations from initial mixing to final forming within the paste plant, including conveyors and units handling heated liquid pitch.

Emission Units to be removed from renewal permit due to correction in unit classification:

EU0340, EU0420, EU0470, and EU0940: These units refer to ductwork and distribution boxes with the Fresh Ore Material Handling process. These are sealed units that are not emission points, and therefore do not have any applicable requirements. However, in the previous Title V permit OP2001033 these units were listed as Emission Units, and made subject to the process weight rule and opacity requirements. Magnitude 7 Metals requests that these units be removed from the requirements of the renewal Title V as they are not emission units.

EU0930: This unit refers to an Alumina Storage tank that is in a closed system. The airslides associated with EP-7 and EP-8 that transfer material into this tank are controlled by their respective dust collectors. This tank itself is not a source of emissions. The current Title V permit OP2001033 lists this tank as an Emission Unit, and made it subject to the process weight rule and opacity requirements. Magnitude 7 Metals requests that this unit be removed from the requirements of the renewal Title V as it is not an emission unit.

EU1410 and EU1490: These units refer to ductwork and distribution boxes with the Reacted Ore Material Handling process. These are sealed units that are not emission points, and therefore do not have any applicable requirements. However, in the previous Title V permit OP2001033 these units were listed as Emission Units, and made subject to the process weight rule and opacity requirements. Magnitude 7 Metals requests that these units be removed from the requirements of the renewal Title V as they are not emission points.

EU2570, EU2580, EU2590, EU3020, EU3030, and EU3040: These units refer to rotary and trickle air locks that are associated with specific dust collectors. They are part of the dust collector, used to recover product from a dust collector and recycle via a conveyor to the process, and are not emission points on their own. However, in the previous Title V permit OP2001033 these units were listed as Emission Units, and made subject to the process weight rule and opacity requirements. Magnitude 7 Metals requests that these units be removed from the requirements of the renewal Title V as they are not emission points.

DUPLICATE THIS FORM AS NEEDED

FORM OP-F01 – GENERAL COMMENTS – SECTION F			
F01.00 – GENERAL COMMENTS			
INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals	143	0008	2018

1. GENERAL INFORMATION

Reference Form OP-D01 – Existing Plant-wide conditions

Clarifications on emission units listed in existing Part 70 Operating Permits:

EU1070- Fresh Ore Material Handling – this emission unit description should be listed as an air gravity conveyor, not as a lift tower. All other information for this unit as submitted in the original application is correct.

EP-71 Anode Paste Production – The number and type of equipment associated with EP-71 has been updated in the renewal application as follows to reflect corrections to the existing permit:

-Removed from service from EP-71: EU2360 (Ball Mill); EU2370 (Crusher); EU2380 (Vibrating Screen); EU2420, 2430, and 2440 (Bucket Elevators); and EU2540 and EU2550 (Rotary Vane Feeders).

-Reclassified from EP-71 to EP-72: EU2390 (Bucket Elevator); EU2480 (Screw Conveyor); and EU2490, 2500, 2510, 2520, and 2530 (Rotary Vane Feeders).

-New emission units EU5010, 5020, and 5030 (Screw Conveyors); EU5040 and 5050 (Vibratory Feeders); and EU5060 (Magnetic Separator) were added under construction permit 0298-001 in March 2003. D03.00 Forms have been completed for this equipment.

EP-72 Anode Paste Production – The number and type of equipment associated with EP-72 has been updated in the renewal application as follows to reflect corrections to the existing permit:

-Removed from service from EP-72: EU2600 and 2610 (Roll Crushers); EU2620 (Vibrating Screen); EU2700, 2710, 2720, 2730, 2740, 2750, 2760, 2770, 2780, 2790, 2800, 2810, 2820, 2830, 2840, 2850, 2860, and 2870 (Vibrating Feeders); EU2890, 2900, 2910, 2920, and 2930 (Screw Feeders), EU2950 and 2960 (Plate Magnetic Separators), EU2970 (Screw Conveyor), and EU3050 (Air Clarifier).

-Reclassified from EP-72 to EP-71: EU2630, 2640, 2650, 2660, 2670, 2680, and 2690 (Vibratory Feeders); and EU2980 and 3000 (Screw Conveyors).

-New emission unit EU5070 (Tramp Iron Separator) was added under Construction permit 0298-001 in March 2003. A D03.00 Form has been completed for this equipment.

EP-74 Anode Paste Production - EU3200 (Screw Conveyor) has been reclassified from EP-74 to EP-72 as a correction to the existing permit.

The existing Title V permit 2001032 subjected the following direct-fired furnaces to the process weight rule: EU3755 (old EU3760), EU4790, 4800, EU4810. While PM emissions are generated by the combustion process in these units, there are no PM emissions from the process materials in these direct-fired units. The process weight rule applies to material handling units. For these direct-fired units, the PM emissions are not related to material handling. Therefore, Magnitude 7 Metals requests that emission units EU3755, 4790, 4800 and 4810 be removed from applicability of 10-6.400. Attachment 3 – Summary of Applicable Requirements reflects this request.

DUPLICATE THIS FORM AS NEEDED

FORM OP-F01 – GENERAL COMMENTS – SECTION F			
F01.00 – GENERAL COMMENTS			
INSTALLATION NAME	FIPS	PLANT NO.	YEAR SUBMITTED
Magnitude 7 Metals	143	0008	2018

1. GENERAL INFORMATION

Exceptions to incorporations by reference of operating permits.

1.) **10-3.050 — Restriction of Emission of Particulate Matter from Industrial Process:** this rule was rescinded March 30, 2001 and replaced with 10-6.400. The particulate matter emission limited were recalculated based on the updated MHDRs in this permit application, see Attachment 1 - PWR.

2.) **10-3.060 — Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating:** This rule was rescinded October 30, 2011 and replaced with 10-6.405. The Particulate Matter emission limitations are incorporated by reference.

3.) **10-3.080 — Restriction of Emission of Visible Air Contaminates:** This rules was rescinded May 30, 2000 and replaced with 10-6.220. The opacity limitations are incorporated by reference from the current Part 70 permits, except as noted in form OP-F01.

4.) **Entire Document** — Each mention of "Noranda" or "Noranda, Inc." should be corrected to instead read "Magnitude 7 Metals" or "Magnitude 7 Metals, LLC." This will reflect the transfer of the New Madrid county facility to a new owner and operator.

5.) **10.6.075 — Emission Standards for Hazardous Air Pollutants for Primary Aluminum Plants:** this condition should be updated to reflect changes to 40 CFR Part 63 Subpart LL; as detailed as follows:
Potlines: *40 CFR 63.843(a)(2)* and *40 CFR 63.843(a)(3)*, addition of emission standards for polycyclic organic matter (POM) and particulate matter (PM), respectively, with specific regard to Class 1 Center-work Prebake Potlines. 40 CFR 63.843(d), addition of emission standards for carbonyl sulfide (COS).

Pitch Tanks: *40 CFR 63.843(d)*, additional requirements for inlet emission control systems and limit for POM emissions.

Anode Bake furnaces: *40 CFR 63.843(c)(3)* and *40 CFR 63.843(c)(4)*, addition of emission standards for PM and Mercury, respectively.. In addition, the anode paste production permitted in OP2001062 has been replaced with EP-100 (EU-5100 through 5160), EP-101 (EU-5200 through EU-5270), and EP-102 (EU-3500 through 5330). OP-D03 Emission Unit Information forms have been included for the emission units associated with these EPs.

6.) **10.6.075 — Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Plants:** this rule should be updated to reflect changes to 40 CFR Part 63 Subpart RRR; as detailed as follows:
~~Furnaces:~~ *40 CFR 63.1505(i)(4)*, addition of emission standards for Hydrogen Fluoride with specific regard to Group 1 furnaces.

7.) **EU1690:** As part of amendments to permits 0679-008 through 011 for the New Madrid facility, the exhaust from Butt Cooling Bay (EU1690) was required to be vented to EP-62 and EP-63 for two hours before being routed to a standalone baghouse (EP-47). An operation change has been made to take EP-47 off-line and vent the exhaust through EP-62 and EP-63 for the entire cooling period. These two EPs are controlled by a conventional baghouse See attachment 7 for 2006 letter addressed to MDNR.

8.) Reference in issued Title V permits to 10-6.080 for applicable NESHAPs (40 CFR Part 63, Subpart LL and RRR) should refer to 10-6.075 as this is the MDNR regulation which incorporates the MACT Standards by reference.

9.) EU-3760 is listed as two different units in OP2001032 and in OP2001062. The renewal application has been clarified to reflect that EU-3760 in OP2001032, which exhausts into EP-97, is now changed to EU-3755 (Carbon Rodding Aluminum Spray Furnace) and that EU-3760 (Roll Conveyer) exhausts to EP-98. See Attachment 4.

10.) Magnitude 7 Metals requests that the opacity monitoring requirements continue at the currently established frequency, and not revert to weekly monitoring as require upon initial Title V issuance.

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Exceptions to incorporations by reference of construction permits.

1.) The VOC and PM10 limits and associated record keeping established in 0298-001 includes the Dross Cooling Systems permitted under construction permits 1288-003A and 1282-007A. This equipment has been removed from service. Magnitude 7 Metals requests that the Dross Cooling Systems be removed from the monthly and consecutive 12 month record keeping requirements of 0298-001. The remaining equipment covered by these limits will continue monthly and consecutive 12 month record keeping requirements as stated in the permit.

DUPLICATE THIS FORM AS NEEDED

ATTACHMENT 1

Boiler NESHAP Applicability Overview

40 CFR Part 63, Subpart DDDDD Applicability Determination

This section presents the basis for the applicability determination for 40 CFR 63, Subpart DDDDD, *Industrial, Commercial and Institutional Boilers and Process Heaters.* 40 CFR 63, Subpart DDDDD was promulgated on September 13, 2004. The NESHAP applies to boilers and process heaters located at a major source of hazardous air pollutants (HAPs). The affected sources include new and existing solid and liquid fuel-fired boilers and process heaters. Direct-fired combustion units are not affected units for this subpart.

Small boilers and process heaters are defined as any firetube boiler (regardless of size) and any other boiler or process heater $\leq$ 10 MMBtu/hr. Large boiler and heaters are defined as any boiler or process heater > 10MMBtu/hr. Existing small units (all fuel types) and new small units (gas fuels) have no emission limits or other applicable requirements (monitoring, record keeping, or notification). Magnitude 7 Metals operates existing small natural gas-fired boilers and process heaters. Existing small natural gas fired boilers at Magnitude 7 Metals' facility include EU3730 (EP-94), EU3740 (EP-95), EU3750 (EP-96), EU3755 (EP-97, labeled as EU3760 in OP2001032), EU4900 (EP-BI), EU4910 (EP-BJ) and EU4920 (EP-BK). (Please note that EP-97 is given a new Emission Unit number in the renewal application since, in the existing Part 70 permits, there are two emission units EU-3760; one in OP2001032 and one in OP2001062). These existing small natural-gas fired units are not subject to any requirements of Subpart DDDDD.
Magnitude 7 Metals operates three existing large, natural gas direct-fired furnaces including EU4790 (EP-AJ), EU4800 (EP-AK), and EU4810 (EP-AL). Since these units are direct-fired, these are not affected units for this subpart.

ATTACHMENT 2

Insignificant Activities Calculations

Space Heater Natural Gas Combustion Potential Criteria Pollutant Emissions

Maximum capacity of NG burners to be considered IA	10.0	MMBtu/hr
Heating Value of NG	1020	MMBtu/MMscf

Pollutant	Emission Factor (lb/MMscf)	PTE (tons/year)	Emission Factor Source
CO	84	3.607	AP-42 Section 1.4 (7/98) Table 1.4.-1
NOx	100	4.294	AP-42 Section 1.4 (7/98) Table 1.4-2
PM Total	7.6	0.326	AP-42 Section 1.4 (7/98) Table 1.4-2
SO2	0.6	0.026	AP-42 Section 1.4 (7/98) Table 1.4-2
VOC	5.5	0.236	AP-42 Section 1.4 (7/98) Table 1.4-2
Lead	0.0005	0.000	AP-42 Section 1.4 (7/98) Table 1.4-2

Space Heater Natural Gas Combustion Potential HAP Emissions

Maximum capacity of NG burners to be considered IA	10.0	MMBtu/hr
Heating Value of NG =	1020	MMBtu/MMscf

HAP	Emission Factor (lb/MMscf)	Potential from NG	Total PTE (tpy)	Emission Factor Source
2-Methylchloroanthrene	1.80E-06	7.73E-08	7.73E-08	AP-42 Section 1.4
2-Methylnaphthalene	2.40E-05	1.03E-06	1.03E-06	AP-42 Section 1.4
7,12-Dimethylbenz(a)anthracene (POI	1.60E-05	6.87E-07	6.87E-07	AP-42 Section 1.4
Acenaphthene (POM)	1.80E-06	7.73E-08	7.73E-08	AP-42 Section 1.4
Acenaphthylene (POM)	1.80E-06	7.73E-08	8.07E-06	AP-42 Section 1.4
Anthracene (POM)	2.40E-06	1.03E-07	1.03E-07	AP-42 Section 1.4
Arsenic	2.00E-04	8.59E-06	4.21E-02	AP-42 Section 1.4
Benz(a)anthracene (POM)	1.80E-06	7.73E-08	1.28E-04	AP-42 Section 1.4
Benzene	2.10E-03	9.02E-05	6.83E-03	AP-42 Section 1.4
Benzo(a)pyrene (POM)	1.20E-06	5.15E-08	5.15E-08	AP-42 Section 1.4
Benzo(b)fluoranthene (POM)	1.80E-06	7.73E-08	4.72E-05	AP-42 Section 1.4
Benzo(g,h,i)perylene (POM)	1.20E-06	5.15E-08	7.21E-05	AP-42 Section 1.4
Benzo(k)fluoranthene (POM)	1.80E-06	7.73E-08	7.73E-08	AP-42 Section 1.4
Beryllium	1.20E-05	5.15E-07	8.87E-04	AP-42 Section 1.4
Cadmium	1.10E-03	4.72E-05	1.27E-02	AP-42 Section 1.4
Chromium	1.40E-03	6.01E-05	2.70E-02	AP-42 Section 1.4
Chrysene (POM)	1.80E-06	7.73E-08	7.59E-05	AP-42 Section 1.4
Cobalt	8.40E-05	3.61E-06	1.92E-01	AP-42 Section 1.4
Copper	8.50E-04	3.65E-05	5.62E-02	AP-42 Section 1.4
Dibenzo(a,h)anthracene (POM)	1.20E-06	5.15E-08	5.33E-05	AP-42 Section 1.4
Dichlorobenzene	1.20E-03	5.15E-05	5.15E-05	AP-42 Section 1.4
Fluoranthene (POM)	3.00E-06	1.29E-07	1.54E-04	AP-42 Section 1.4
Fluorene (POM)	2.80E-06	1.20E-07	1.43E-04	AP-42 Section 1.4
Formaldehyde	7.50E-02	3.22E-03	1.05E+00	AP-42 Section 1.4
Hexane	1.80E+00	7.73E-02	7.73E-02	AP-42 Section 1.4
Indeno(1,2,3-cd)pyrene (POM)	1.80E-06	7.73E-08	6.83E-05	AP-42 Section 1.4
Lead	5.00E-04	2.15E-05	4.82E-02	AP-42 Section 1.4
Manganese	3.80E-04	1.63E-05	9.57E-02	AP-42 Section 1.4
Mercury	2.60E-04	1.12E-05	3.61E-03	AP-42 Section 1.4
Molybdenum	1.10E-03	4.72E-05	2.51E-02	AP-42 Section 1.4
Naphthalene	6.10E-04	2.62E-05	3.61E-02	AP-42 Section 1.4
Nickel	2.10E-03	9.02E-05	2.70E+00	AP-42 Section 1.4
Phenanathrene	1.70E-05	7.30E-07	3.35E-04	AP-42 Section 1.4
Pyrene (POM)	5.00E-06	2.15E-07	1.36E-04	AP-42 Section 1.4
Selenium	2.40E-05	1.03E-06	2.18E-02	AP-42 Section 1.4
Toluene	3.40E-03	1.46E-04	1.98E-01	AP-42 Section 1.4
Vanadium	2.30E-03	9.88E-05	1.01E+00	AP-42 Section 1.4
Zinc	2.90E-03	1.25E-04	9.29E-01	AP-42 Section 1.4

ATTACHMENT 3

Summary of Applicable Requirements

Summary of Applicable Emission Limits

							PM - PWR	PM-IDH	Opacity	10-6.076 40 CFR Part 63 NESHAPs										Construction Permit 0298-001		PSD Permit 102004-053A		
Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Code	Current Operating Permit	10-6.400 PM Limit (lb/hr)	10-6.405 PM Limit (lb/MMBtu)	10-6.220 or 40 CFR Part 60, Subpart S - Opacity Limit	Subpart RRR - PM Limit (lb/ton feed)	Subpart RRR - HCl Limit (lb/ton feed)	Subpart RRR - HF Limit (lb/ton feed)	Subpart RRR - D/F Limit (gr/ton feed)	Subpart LL - TF Limit (lb/ton Al or green anode)	Subpart LL - POM Limit (lb/ton Al or green anode)	Subpart LL - PM Limit (lb/ton Al or green anode)	Subpart LL - Hg Limit (µg/DSCM)	Subpart LL - POM Limit (lb/ton green anode)	PM10 Limit (tpy)	VOC Limit (tpy)	Attachment B PM10 Limit (lb/hr)	SO2 Limit (tpy)	CO Limit (lb/hr)
EP-01	River Unloading	EU0010	Vacuum Unloader	CD-1	018	OP2001032	58.51		40%												0.3843		
EP-02	River Unloading	EU0020	Vacuum Unloader	CD-2	018	OP2001032	58.51		40%												0.3843		
EP-03	River Unloading	EU0030	Airslide	CD-3	018	OP2001032	58.51		40%												0.3433		
		EU0040	Airslide			OP2001032	58.51		40%														
		EU0050	Airslide			OP2001032	58.51		40%														
		EU0060	Airslide			OP2001032	58.51		40%														
		EU0070	Airslide			OP2001032	58.51		40%														
		EU0080	Airslide			OP2001032	58.51		40%														
		EU0090	Airslide			OP2001032	58.51		40%														
		EU0100	Airslide			OP2001032	58.51		40%														
EP-04	Railcar Unloading	EU0110	Vibrating Feeder	CD-4	018	OP2001032	58.51		40%												2.0571		
		EU0120	Vibrating Feeder			OP2001032	58.51		40%														
		EU0130	Vibrating Feeder			OP2001032	58.51		40%														
		EU0140	Screw Conveyor			OP2001032	58.51		40%														
		EU0150	Car Shaker			OP2001032	58.51		40%														
EP-05	Fresh Ore Material Handling	EU0160	Bucket Elevator	CD-5	018	OP2001033	58.51		40%												0.5148		
		EU0170	Bucket Elevator			OP2001033	58.51		40%														
		EU0180	Airslide			OP2001033	58.51		40%														
		EU0190	Airslide			OP2001033	58.51		40%														
		EU0200	Airslide			OP2001033	58.51		40%														
		EU0210	Airslide			OP2001033	58.51		40%														
		EU0220	Airslide			OP2001033	58.51		40%														
		EU0230	Airslide			OP2001033	58.51		40%														
		EU0240	Airslide			OP2001033	58.51		40%														
		EU0250	Airslide			OP2001033	58.51		40%														
EP-06	Fresh Ore Material Handling	EU0260	Airslide	CD-6	018	OP2001033	58.51		20%												0.2057		
EP-07	Fresh Ore Material Handling	EU0270	Belt Conveyor	CD-7	018	OP2001033	58.51		20%												0.4936		
		EU0280	Screening Machine			OP2001033	58.51		20%														
		EU0290	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0300	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0310	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0320	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0330	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0350	Fan			OP2001033	58.51		20%														
		EU0360	Fan			OP2001033	58.51		20%														
		EU0370	Lift Tower			OP2001033	58.51		20%														
		EU0380	Lift Tower			OP2001033	58.51		20%														
		EU0390	Blower with filters and Motor			OP2001033	58.51		20%														
		EU0400	Blower with filters and Motor			OP2001033	58.51		20%														
		EU0410	Blower with filters and Motor			OP2001033	58.51		20%														
		EU0430	Airslide			OP2001033	58.51		20%														
EP-08	Fresh Ore Material Handling	EU0440	Lift Tower	CD-8	018	OP2001033	58.51		20%												0.8057		
		EU0450	Lift Tower			OP2001033	58.51		20%														
		EU0460	Airslide			OP2001033	58.51		20%														
		EU0480	Blower with filters and Motor			OP2001033	58.51		20%														
		EU0490	Blower with filters and Motor			OP2001033	58.51		20%														
		EU0500	Blower with filters and Motor			OP2001033	58.51		20%														
		EU0510	Fan			OP2001033	58.51		20%														
		EU0520	Fan			OP2001033	58.51		20%														
		EU0530	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0540	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0550	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0560	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0570	Air Gravity Conveyor			OP2001033	58.51		20%														
		EU0580	Screening Machine			OP2001033	58.51		20%														
		EU0590	Belt Conveyor			OP2001033	58.51		20%														
EP-09	Reacted Ore Material Handling	EU0600	Airslide	CD-9	018	OP2001033	58.51		40%												0.2671		
		EU0610	Airslide			OP2001033	58.51		40%														
		EU0620	Airslide			OP2001033	58.51		40%														
		EU0630	Airslide			OP2001033	58.51		40%														
		EU0640	Belt Conveyor			OP2001033	58.51		40%														
EP-10	Reacted Ore Material Handling	EU0650	Belt Conveyor	CD-10	018	OP2001033	58.51		40%												0.3557		
EP-11	Fresh Ore Material Handling	EU0660	Belt Conveyor	CD-11	018	OP2001033	58.51		20%												0.2207		
		EU0670	Flow Control Gate			OP2001033	58.51		20%														
		EU0680	Flow Control Gate			OP2001033	58.51		20%														
		EU0690	Flow Control Gate			OP2001033	58.51		20%														
		EU0700	Airslide			OP2001033	58.51		20%														
		EU0710	Airslide			OP2001033	58.51		20%														
		EU0720	Airslide			OP2001033	58.51		20%														
		EU0730	Airslide			OP2001033	58.51		20%														
		EU0740	Airslide			OP2001033	58.51		20%														
		EU0750	Airslide			OP2001033	58.51		20%														
		EU0760	Airslide			OP2001033	58.51		20%														
		EU0770	Airslide			OP2001033	58.51		20%														
		EU0780	Airslide			OP2001033	58.51		20%														
EP-12	Reacted Ore Material Handling	EU0790	Belt Conveyor	CD-12	018	OP2001033	58.51		20%												0.5314		
		EU0800	Airslide		018	OP2001033	58.51		20%														
		EU0810	Airslide		018	OP2001033	58.51		20%														
EP-13	Reacted Ore Material Handling	EU0820	Side Discharge Gate	CD-13	018	OP2001033	58.51		20%												0.8118		
		EU0830	Belt Conveyor			OP2001033	58.51		20%														
		EU0840	Belt Conveyor			OP2001033	58.51		20%														
		EU0850	Airslide			OP2001033	58.51		20%														
		EU0860	Airslide			OP2001033	58.51		20%														
		EU0870	Airslide			OP2001033	58.51		20%														
		EU0880	Bucket Elevator			OP2001033	58.51		20%														
EP-14	Fresh Ore Material Handling	EU0890	Belt Conveyor	CD-14	018	OP2001033	51.28		20%												0.9129		
		EU0900	Airslide			OP2001033	51.28		20%														
		EU0910	Airslide			OP2001033	51.28		20%														
EP-15	Fresh Ore Material Handling	EU0920	Blower with filters and Motor	CD-15	018	OP2001033	51.28		20%												0.4971		
		EU0950	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU0960	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU0970	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU0980	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU0990	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1000	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1010	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1020	Airslide			OP2001033	51.28		20%														
		EU1030	Airslide			OP2001033	51.28		20%														
		EU1040	Airslide			OP2001033	51.28		20%														
		EU1050	Airslide			OP2001033	51.28		20%														
EP-16	Fresh Ore Material Handling	EU1060	Air Gravity Conveyor	CD-16	018	OP2001033	51.28		20%												0.1029		
EP-17	Fresh Ore Material Handling	EU1070	Air Gravity Conveyor	CD-17	018	OP2001033	51.28		20%												0.1029		
EP-18	Fresh Ore Material Handling	EU1080	Air Gravity Conveyor	CD-18	018	OP2001033	51.28		20%												0.1029		
EP-19	Fresh Ore Material Handling	EU1090	Air Gravity Conveyor	CD-19	018	OP2001033	51.28		20%												0.1029		
EP-20	Fresh Ore Material Handling	EU1100	Air Gravity Conveyor	CD-20	018	OP2001033	51.28		20%												0.1029		
EP-21	Fresh Ore Material Handling	EU1110	Air Gravity Conveyor	CD-21	018	OP2001033	51.28		20%												0.4971		
		EU1120	Air Gravity Conveyor			OP2001033	51.28		20%														

Summary of Applicable Emission Limits

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Code	Current Operating Permit	10-6.400 PM Limit (lb/hr)	10-6.405 PM Limit (lb/MMBtu)	10-6.220 or 40 CFR Part 60, Subpart S - Opacity Limit	Subpart RRR - PM Limit (lb/ton feed)	Subpart RRR - HCl Limit (lb/ton feed)	Subpart RRR - HF Limit (lb/ton feed)	Subpart RRR - D/F Limit (gr/ton feed)	Subpart LL - TF Limit (lb/ton Al or green anode)	Subpart LL - POM Limit (lb/ton Al or green anode)	Subpart LL - PM Limit (lb/ton Al or green anode)	Subpart LL - Hg Limit (µg/DSCM)	Subpart LL - POM Limit (lb/ton green anode)	PM10 Limit (tpy)	VOC Limit (tpy)	Attachment B PM10 Limit (lb/hr)	SO2 Limit (tpy)	CO Limit (lb/hr)
EP-22	Fresh Ore Material Handling	EU1130	Air Gravity Conveyor	CD-22	018	OP2001033	51.28		20%												0.3000		
		EU1140	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1150	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1160	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1170	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1180	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1190	Air Gravity Conveyor			OP2001033	51.28		20%														
EP-23	Fresh Ore Material Handling	EU1200	Screw Conveyor	CD-23	018	OP2001033	51.28		20%												0.3000		
		EU1210	Screw Conveyor			OP2001033	51.28		20%														
		EU1220	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1230	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1240	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1250	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1260	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1270	Air Gravity Conveyor			OP2001033	51.28		20%														
		EU1280	Air Gravity Conveyor			OP2001033	51.28		20%														
EP-24	Fresh Ore Material Handling	EU1300	Bucket Elevator	CD-24	018	In original application, but not in issued T5	51.28		40%												0.5000		
EP-25	Fresh Ore Material Handling	EU1310	Air-Float Conveyor	CD-25	018	OP2001033	51.28		20%												0.3429		
EP-26	Reacted Ore Material Handling	EU1320	Airslide	CD-26	018	OP2001033	42.53		20%												0.3429		
EP-27	Reacted Ore Material Handling	EU1330	Air Gravity Conveyor	CD-27	018	OP2001033	42.53		20%												0.0686		
EP-28	Reacted Ore Material Handling	EU1340	Air Gravity Conveyor	CD-28	018	OP2001033	42.53		20%												0.0686		
EP-29	Reacted Ore Material Handling	EU1350	Air Gravity Conveyor	CD-29	018	OP2001033	42.53		20%												0.0686		
EP-30	Reacted Ore Material Handling	EU1360	Air Gravity Conveyor	CD-30	018	OP2001033	42.53		20%												0.0686		
EP-31	Reacted Ore Material Handling	EU1370	Air Gravity Conveyor	CD-31	018	OP2001033	42.53		20%												0.0686		
EP-32	Reacted Ore Material Handling	EU1380	Air Gravity Conveyor	CD-32	018	OP2001033	42.53		20%												0.0686		
EP-33	Reacted Ore Material Handling	EU1390	Air Gravity Conveyor	CD-33	018	OP2001033	42.53		20%												0.0686		
EP-34	Reacted Ore Material Handling	EU1400	Air Gravity Conveyor	CD-34	018	OP2001033	42.53		20%												0.0686		
EP-35	Reacted Ore Material Handling	EU1420	Air Gravity Conveyor	CD-35	018	OP2001033	42.53		20%												0.1457		
		EU1430	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1440	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1450	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1460	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1470	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1480	Air Gravity Conveyor			OP2001033	42.53		20%														
EP-36	Reacted Ore Material Handling	EU1500	Air Gravity Conveyor	CD-36	018	OP2001033	42.53		20%												0.3429		
		EU1510	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1520	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1530	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1540	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1550	Air Gravity Conveyor			OP2001033	42.53		20%														
		EU1560	Air Gravity Conveyor			OP2001033	42.53		20%														
EP-37	Reacted Ore Material Handling	EU1570	Air Gravity Conveyor	CD-37	018	OP2001033	42.53		20%												0.0686		
EP-38	Reacted Ore Material Handling	EU1580	Air Gravity Conveyor	CD-38	018	OP2001033	42.53		20%												0.0686		
EP-39	Reacted Ore Material Handling	EU1590	Air Gravity Conveyor	CD-39	018	OP2001033	42.53		20%												0.0686		
EP-40	Reacted Ore Material Handling	EU1600	Air Gravity Conveyor	CD-40	018	OP2001033	42.53		20%												0.0686		
EP-41	Reacted Ore Material Handling	EU1610	Air Gravity Conveyor	CD-41	018	OP2001033	42.53		20%												0.0686		
EP-42	Reacted Ore Material Handling	EU1620	Air Gravity Conveyor	CD-42	018	OP2001033	42.53		20%												0.0686		
EP-43	Reacted Ore Material Handling	EU1630	Air Gravity Conveyor	CD-43	018	OP2001033	42.53		20%												0.0686		
EP-44	Reacted Ore Material Handling	EU1640	Air Gravity Conveyor	CD-44	018	OP2001033	42.53		20%												0.0686		
EP-45	Reacted Ore Material Handling	EU1650	Air Gravity Conveyor	CD-45	018	OP2001033	42.53		20%												0.1457		
EP-46	Electrolyte Recovery	EU1660	Power and Free	CD-46/46A	018	OP2001033	42.53		20%												2.6143		
		EU1670	Bath Chipping Station	CD-46/46A	018	OP2001033	42.53		20%														
		EU1680	Butt Blowoff Cabinet	CD-46/46A	018	OP2001033	42.53		20%														
EP-47	Electrolyte Recovery	EU1690	Butt Cooling Bays	CD-47	100	OP2001033	30.51		20%												12.8571		
EP-48	Electrolyte Recovery	EU1700	Vibrating Screen	CD-48	018	OP2001033	42.53		20%												6.1286		
EP-49	Electrolyte Recovery	EU1710	Belt Conveyor	CD-49	018	OP2001033	42.53		20%												0.2400		
		EU1720	Roll Crusher			OP2001033	42.53		20%														
		EU1730	Bucket Elevator			OP2001033	42.53		20%														
		EU1740	Bucket Elevator			OP2001033	42.53		20%														
		EU1750	Screw Conveyor			OP2001033	42.53		20%														
		EU1760	Screw Conveyor			OP2001033	42.53		20%														
		EU1770	Screw Conveyor			OP2001033	42.53		20%														
		EU1780	Screw Conveyor			OP2001033	42.53		20%														
		EU1790	Screw Conveyor			OP2001033	42.53		20%														
		EU1800	Screw Feeder			OP2001033	42.53		20%														
		EU1810	Screw Feeder			OP2001033	42.53		20%														
		EU1820	Vibrating Screen			OP2001033	42.53		20%														
		EU1830	Bath, Dense Phase Pump			OP2001033	42.53		20%														
		EU1840	Bath, Dense Phase Pump			OP2001033	42.53		20%														
		EU1850	Crucible Cleaning Machine			OP2001033	42.53		20%														
EP-50	Electrolyte Recovery	EU1860	Vibrating Feeder	CD-50	018	OP2001033	42.53		20%												1.9714		
		EU1870	Magnetic Separator			OP2001033	42.53		20%														
		EU1880	Rotary Breaker			OP2001033	42.53		20%														
EP-51	Electrolyte Recovery Room A																						
EP-52	Electrolyte Recovery Room B																						
EP-53	Electrolyte Recovery Room C																						
EP-54	Electrolyte Recovery Room D																						
EP-55	Electrolyte Recovery	EU1930	Air Slide	CD-55	018	OP2001033	42.53		20%												0.2400		
EP-56	Electrolyte Recovery	EU1940	Air Slide	CD-56	018	OP2001033	42.53		20%												0.2400		
EP-57	Fresh Ore Material Handling	EU1950	Air Receiver	CD-57	018	OP2001033	42.53		20%												0.5143		
EP-58	Electrolyte Recovery	EU1960	Butt Blast Cleaning Machine	CD-58	018	OP2001033	42.53		20%												1.0286		
EP-59	Monitor - Potline 1	EU1970	Potline 1 (secondary emissions-roof vents)	N/A		OP2001-062	with EU1990		20%					with EU1990	with EU1990	with EU1990					50.2800		
EP-60	Monitor - Potline 2	EU1980	Potline 2 (secondary emissions-roof vents)	N/A		OP2001-062	with EU2000		20%					with EU2000	with EU2000	with EU2000					31.1400		
EP-61	Potline I & II Stack	EU1990	Potline 1 (primary emissions - stack)	20 of CD-61	071	OP2001-062	19.89		20%					1.9	1.9	7.4					29.0900	5544	2391
		EU2000	Potline 2 (primary emissions - stack)	20 of CD-61A	071	OP2001-062	19.89		20%					1.9	1.9	7.4							2391
EP-62	161 Unit Stack	EU2010	Potline 3 (primary emissions-161 unit stack)	5 of CD-62	071	OP2001-062	14.22		10%					1.9	1.9	7.4					7.2500		1469
EP-63	162 Unit Stack	EU2030	Potline 3 (primary emissions-162 unit stack)	5 of CD-63	071	OP2001-062	14.22		10%					1.9	1.9	7.4					7.2500		1469
EP-64	Monitor - Potline 3	EU2050	Potline 3 (secondary emissions-roof vent fugitives)	N/A		OP2001-062	s EU2010 and 2030		10%					with EU2010 and 2030	with EU2010 and 2031	with EU2010 and 2032					22.2700		
EP-65	Petroleum Coke Handling	EU2060	Belt Conveyor	CD-65	018	OP2001033	42.53		20%												0.3429		
		EU2070	Belt Conveyor			OP2001033	42.53		20%														
		EU2080	Belt Conveyor			OP2001033	42.53		20%														
		EU2090	Belt Conveyor			OP2001033	42.53		20%														
		EU2100	Belt Conveyor			OP2001033	42.53		20%														
EP-66	Petroleum Coke Handling	EU2110	Belt Conveyor	CD-66	018	OP2001033	42.53		20%												0.3429		
		EU2120	Screw Conveyor			OP2001033	42.53		20%														
		EU2130	Screw Conveyor			OP2001033	42.53		20%														
EP-67	Petroleum Coke Handling	EU2140	Screw Conveyor	CD-67	018	OP2001033	42.53		20%												0.1286		
		EU2150	Screw Conveyor			OP2001033	42.53		20%														
		EU2160	Screw Conveyor			OP2001033	42.53		20%														
EP-68	Primary Crusher (North)	EU2170	Tumble Mill	CD-68	018	OP2001033	42.53		20%												0.8571		
		EU2180	Butt Removal Press			OP2001033	42.53		20%														
		EU2190	Primary Butt Crusher			OP2001033	42.53		20%														
		EU2200	Secondary Butt Crusher			OP2001033	42.53		20%														
		EU2210	Vibrating Screen			OP2001033	42.53		20%														
		EU2220	Separator			OP2001033	42.53		20%														
		EU2230	Vibrating Feeder			OP2001033	42.53		20%														

Summary of Applicable Emission Limits

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Code	Current Operating Permit	10-6.400 PM Limit (lb/hr)	10-6.405 PM Limit (lb/MMBtu)	10-6.220 or 40 CFR Part 60, Subpart S - Opacity Limit	Subpart RRR - PM Limit (lb/ton feed)	Subpart RRR - HCl Limit (lb/ton feed)	Subpart RRR - HF Limit (lb/ton feed)	Subpart RRR - D/F Limit (gr/ton feed)	Subpart LL - TF Limit (lb/ton Al or green anode)	Subpart LL - PDM Limit (lb/ton Al or green anode)	Subpart LL - PM Limit (lb/ton Al or green anode)	Subpart LL - Hg Limit (µg/DSCM)	Subpart LL - POM Limit (lb/ton green anode)	PM10 Limit (tpy)	VOC Limit (tpy)	Attachment B PM10 Limit (lb/hr)	SO2 Limit (tpy)	CO Limit (lb/hr)
		EU2240	Vibrating Feeder			OP2001033	42.53		20%														
		EU2250	Tumbla Mill			OP2001033	42.53		20%														
		EU2260	Butt Removal Press			OP2001033	42.53		20%														
		EU2270	Magnetic Separator			OP2001033	42.53		20%														
EP-69	Primary Crusher (South)	EU2280	Belt Conveyor	CD-69	016	OP2001032	42.53		20%												1.8714		
		EU2290	Screw Conveyor			OP2001033	42.53		20%														
		EU2300	Vibrating Feeder			OP2001033	42.53		20%														
		EU2310	Vibrating Feeder			OP2001033	42.53		20%														
		EU2320	Ball Mill			OP2001033	42.53		20%														
EP-70	Tertiary Crusher	EU2330	Tertiary Butts Crusher	CD-70	018	OP2001033	42.53		20%												1.1957		
		EU2340	Bucket Elevator			OP2001033	42.53		20%														
		EU2350	Vibrating Feeder			OP2001033	42.53		20%														
		EU2400	Bucket Elevator			OP2001033	42.53		20%														
		EU2410	Bucket Elevator			OP2001033	42.53		20%														
		EU2450	Screw Conveyor			OP2001033	42.53		20%														
		EU2460	Screw Conveyor			OP2001033	42.53		20%														
		EU2470	Screw Conveyor			OP2001033	42.53		20%														
		EU2600	Vibratory Feeder			OP2001033	42.53		20%														
		EU2630	Vibratory Feeder			OP2001033	42.53		20%														
		EU2640	Vibratory Feeder			OP2001033	42.53		20%														
		EU2650	Vibratory Feeder			OP2001033	42.53		20%														
		EU2660	Vibratory Feeder			OP2001033	42.53		20%														
EP-71	Anode Paste Production	EU2670	Vibratory Feeder	CD-71	018	OP2001033	42.53		20%												0.1286		
		EU2680	Vibratory Feeder			OP2001033	42.53		20%														
		EU2690	Vibratory Feeder			OP2001033	42.53		20%														
		EU2950	Screw Conveyor			OP2001033	42.53		20%														
		EU3000	Screw Conveyor			OP2001033	42.53		20%														
		EU5010	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%														
		EU5020	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%														
		EU5030	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%														
		EU5040	Vibratory Feeder			New unit - Const Permit 0298-001	42.53		20%														
		EU5050	Vibratory Feeder			New unit - Const Permit 0298-001	42.53		20%														
		EU5060	Magnetic Separator			New unit - Const Permit 0298-001	42.53		20%														
		EU2390	Bucket Elevator			OP2001033	42.53		20%														
		EU2480	Screw Conveyor			OP2001033	42.53		20%														
		EU2490	Rotary Vane Feeder			OP2001033	42.53		20%														
		EU2500	Rotary Vane Feeder			OP2001033	42.53		20%														
		EU2510	Rotary Vane Feeder			OP2001033	42.53		20%														
EP-72	Anode Paste Production	EU2520	Rotary Vane Feeder	CD-72	018	OP2001033	42.53		20%												0.3429		
		EU2530	Rotary Vane Feeder			OP2001033	42.53		20%														
		EU2880	Screw Feeder			OP2001033	42.53		20%														
		EU2640	Screw Feeder			OP2001033	42.53		20%														
		EU3200	Screw Conveyor			OP2001033	42.53		20%														
		EU5070	Tramp Iron Separator			New unit - Const Permit 0298-001	42.53		20%														
		EU3060	Vibratory Feeder			OP2001033	42.53		20%														
		EU3070	Vibratory Feeder			OP2001033	42.53		20%														
		EU3080	Vibratory Feeder			OP2001033	42.53		20%														
EP-73	Anode Paste Production	EU3090	Vibratory Feeder	CD-73	018	OP2001033	42.53		20%												1.5103		
		EU3100	Conveyor / Bucket Elevator			OP2001033	42.53		20%														
		EU3110	Paste Mixer			OP2001033	42.53		20%														
		EU3120	Belt Conveyor			OP2001033	42.53		20%														
		EU3130	Apron Conveyor			OP2001033	42.53		20%														
		EU3140	Screw Conveyor			OP2001033	42.53		20%														
		EU3150	Screw Conveyor			OP2001033	42.53		20%														
		EU3160	Screw Conveyor			OP2001033	42.53		20%														
EP-74	Anode Paste Production	EU3170	Screw Conveyor	CD-74	018	OP2001033	42.53		20%												0.2229		
		EU3180	Screw Conveyor			OP2001033	42.53		20%														
		EU3190	Screw Conveyor			OP2001033	42.53		20%														
		EU3210	Screw Conveyor			OP2001033	42.53		20%														
		EU3220	Screw Conveyor			OP2001033	42.53		20%														
		EU3230	Screw Conveyor			OP2001033	42.53		20%														
EP-79	Anode Cleaning System	EU3620	Anode Cleaning Station	CD-79	018	OP2001033	42.53		20%												0.4286		
EP-80	Fresh Ore Handling	EU3630	Air-Float Conveyor	CD-80	018	OP2001033	42.53		20%												0.2057		
EP-81	Fresh Ore Handling	EU3640	Air-Float Conveyor	CD-81	018	OP2001033	42.53		20%												0.0279		
EP-82	Anode Stem Cleaning (Phase I)	EU3650	Stub and Rod Cleaner	CD-82	018	OP2001033	4.10		20%												0.7680		
EP-83	Cathode Casting Station	EU3660	Collector Bar Cleaner	CD-83	018	OP2001033	4.10		40%												0.6185		
EP-84	Anode Stem Cleaning	EU3670	Rod and Stub Cleaner	CD-84	018	OP2001033	4.10		20%												0.4625		
EP-88	Welding Fume Exhaust for Anode Repair	EU3680	Electric Welder	CD-86	056	OP2001033													See Note 1	See Note 2			
EP-87	Welding Fume Exhaust for Shield Repair	EU3685	Electric Welder	N/A		New unit - No Const Permit Reqd per 3/24/2009 MDNR correspondance																	
EP-91	Vent for Pitch Day Tank	EU3690, 3700	Pitch Day Tank, Pitch Unloading Pumps	N/A		OP2001-052			40%														
		EU3710, 3720	Pitch Day Tank, Pitch Transfer Pumps	N/A		OP2001-052			40%														
EP-94	Natural Gas Fired Boiler for Hot Oil System	EU3730	Boiler for Hot Oil System	N/A		OP2001032		Exempt per 20010032 Statement of Basis	40%														
EP-95	Natural Gas Fired Boiler for Hot Oil System	EU3740	Boiler for Hot Oil System	N/A		OP2001032		Exempt per 20010032 Statement of Basis	40%														
EP-96	Natural Gas Fired Boiler for Hot Oil System	EU3750	Boiler for Hot Oil System	N/A		OP2001032		0.61	20%														
EP-97	Carbon Rodding Aluminum Spray Furnace	EU3755	Furnace - EU # has been changed from T5	N/A		OP2001032			40%														
		EU3760	Roll Conveyor (carbon bake)			OP2001-052			20%														
		EU3770	Roll Conveyor (carbon bake)			OP2001-052			20%														
		EU3780	Roll Conveyor (carbon bake)			OP2001-052			20%														
		EU3790	Roll Conveyor (carbon bake)			OP2001-052			20%														
		EU3800	Roller Flight Conveyor (carbon bake)			OP2001-052			20%														
		EU3810	Belt Conveyor (carbon bake)			OP2001-052			20%														
		EU3820	Belt Conveyor (carbon bake)			OP2001-052			20%														
		EU3830	Power Roll Conveyor (carbon bake)			OP2001-052			20%														
		EU3840	Power Roll Conveyor (carbon bake)			OP2001-052			20%														
		EU3850	Power Roll Conveyor (carbon bake)			OP2001-052			20%														
		EU3860	Power Roll Conveyor (carbon bake)			OP2001-052			20%														
		EU3870	Power Roll Conveyor (carbon bake)			OP2001-052			20%														
EP-98	Carbon Bake 1 Stacks (64 total)	EU3880	Power Roll Conveyor (carbon bake)	4 OF CD-98	071	OP2001-052	19.69		20%					0.2		0.2	1.7	0.18					
		EU3890	Pusher (carbon bake)			OP2001-052			20%														
		EU3900	Screw Conveyor			OP2001-052			20%														
		EU3910	Screw Conveyor			OP2001-052			20%														
		EU3920	Conveyor, Chain Drive (carbon bake)			OP2001-052			20%														
		EU3930	Conveyor, Chain Drive (carbon bake)			OP2001-052			20%														
		EU3940	Vertical Reciprocating Lift (carbon bake)			OP2001-052			20%														
		EU3950	Air/Material Manifold			OP2001-052			20%														
		EU3960	Burner Manifold (carbon bake)			OP2001-052			20%														
		EU3970	Burner Manifold (carbon bake)			OP2001-052			20%														
		EU3980	Burner Manifold (carbon bake)			OP2001-052			20%														
		EU3990	Burner Manifold (carbon bake)			OP2001-052			20%														
		EU4000	Burner Manifold (carbon bake)			OP2001-052			20%														
		EU4010	Conveyors (carbon bake)			OP2001-052			20%														
		EU4020	Conveyors (carbon bake)			OP2001-052			20%														
		EU4030	Conveyors (carbon bake)			OP2001-052			20%														
		EU4040	Conveyors (carbon bake)			OP2001-052			20%														
		EU4050	Conveyors (carbon bake)			OP2001-052			20%														

Summary of Applicable Emission Limits

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Code	Current Operating Permit	10-6.400 PM Limit (lb/hr)	10-6.405 PM Limit (lb/MMBtu)	10-6.220 or 40 CFR Part 60, Subpart S - Opacity Limit	Subpart RRR - PM Limit (lb/ton feed)	Subpart RRR - HCl Limit (lb/ton feed)	Subpart RRR - HF Limit (lb/ton feed)	Subpart RRR - D/F Limit (gr/ton feed)	Subpart LL - TF Limit (lb/ton Al or green anode)	Subpart LL - POM Limit (lb/ton Al or green anode)	Subpart LL - PM Limit (lb/ton Al or green anode)	Subpart LL - Hg Limit (µg/DSCM)	Subpart LL - POM Limit (lb/ton green anode)	PM10 Limit (tpy)	VOC Limit (tpy)	Attachment B PM10 Limit (lb/hr)	SO2 Limit (tpy)	CO Limit (lb/hr)
EP-99	Carbon Bake 2 Stacks (64 total)	EU4060	Conveyors (carbon bake)	4 OF CD-99	071	OP2001-062	19.69		20%					0.2		0.2	1.7	0.18					
		EU4070	Conveyors (carbon bake)			OP2001-062			20%														
		EU4080	Conveyors (carbon bake)			OP2001-062			20%														
		EU4090	Conveyors (carbon bake)			OP2001-062			20%														
		EU4100	Conveyors (carbon bake)			OP2001-062			20%														
		EU4110	Power Roll, Gravity Rolls (carbon bake)			OP2001-062			20%														
		EU4120	Bar Flight (carbon bake)			OP2001-062			20%														
		EU4130	Screw Conveyor (carbon bake)			OP2001-062			20%														
		EU4140	Screw Conveyor (carbon bake)			OP2001-062			20%														
		EU4150	Screw Conveyor (carbon bake)			OP2001-062			20%														
		EU4160	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4170	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4180	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4190	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4200	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4210	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4220	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4230	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4240	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4250	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4260	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4270	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4280	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4290	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4300	Green Anode Stacker (carbon bake)			OP2001-062			20%														
		EU4310	Burner Manifold (carbon bake)			OP2001-062			20%														
		EU4320	Burner Manifold (carbon bake)			OP2001-062			20%														
		EU4330	Burner Manifold (carbon bake)			OP2001-062			20%														
		EU4340	Burner Manifold (carbon bake)			OP2001-062			20%														
		EU4350	Burner Manifold (carbon bake)			OP2001-062			20%														
EP-AA	Carbon Bake 3 Stack	EU4360	Power Roll Conveyor (carbon bake)	4 OF CD-AA	071	OP2001-062	22.83		20%					0.2		0.2	1.7	0.18					
		EU4370	Power Roll Conveyor (carbon bake)			OP2001-062			20%														
		EU4380	Power Roll Conveyor (carbon bake)			OP2001-062			20%														
		EU4390	Power Roll Conveyor (carbon bake)			OP2001-062			20%														
		EU4400	Power Roll Conveyor (carbon bake)			OP2001-062			20%														
		EU4410	Power Roll Conveyor (carbon bake)			OP2001-062			20%														
		EU4420	Roller Conveyor (carbon bake)			OP2001-062			20%														
		EU4430	Roller Conveyor (carbon bake)			OP2001-062			20%														
		EU4440	Roller Conveyor (carbon bake)			OP2001-062			20%														
		EU4450	Roller Conveyor (carbon bake)			OP2001-062			20%														
		EU4460	Accumulative Conveyor (carbon bake)			OP2001-062			20%														
		EU4470	Bar Flight Conveyor (carbon bake)			OP2001-062			20%														
		EU4480	Conveyor (carbon bake)			OP2001-062			20%														
		EU4490	Conveyor (carbon bake)			OP2001-062			20%														
		EU4500	Conveyor (carbon bake)			OP2001-062			20%														
		EU4510	Screw Conveyor (carbon bake)			OP2001-062			20%														
		EU4520	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4530	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4540	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4550	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4560	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4570	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4580	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4590	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4600	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4610	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4620	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4630	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4640	Conveyor, Chain Driven (carbon bake)			OP2001-062			20%														
		EU4650	Burner Manifold (carbon bake)			OP2001-062			20%														
		EU4660	Burner Manifold (carbon bake)			OP2001-062			20%														
		EU4670	Burner Manifold (carbon bake)			OP2001-062			20%														
		EU4680	Burner Manifold (carbon bake)			OP2001-062			20%														
		EU4690	Burner Manifold (carbon bake)			OP2001-062			20%														
		EU4700	Burner Manifold (carbon bake)			OP2001-062			20%														
EP-AB	Stack for Pig Melter	EU4710	#3 Melting Furnace-Pig (Metal Products)	N/A		OP2001-066	19.18		20%	0.4	0.4	0.4	2.10E-04										
EP-AD	Stack for #1 Melter	EU4730	#1 Melting Furnace (Metal Products)	N/A		OP2001-066	19.18		20%	0.4	0.4	0.4	2.10E-04										
EP-AE	Stack for #1 Holder	EU4740	#1 Holding Furnace (Metal Products)	N/A		OP2001-066	19.18		20%	0.4	0.4	0.4	2.10E-04										
EP-AF	Stack for #2 Melter	EU4750	#2 Melting Furnace (Metal Products)	N/A		OP2001-066	19.18		20%	0.4	0.4	0.4	2.10E-04										
EP-AG	Stack for #2 Holder	EU4760	#2 Holding Furnace (Metal Products)	N/A		OP2001-066	19.18		20%	0.4	0.4	0.4	2.10E-04										
EP-AH	Stack for #4 Melter	EU4770	#4 Melting Furnace (Metal Products)	N/A		OP2001-066	19.18		20%	0.4	0.4	0.4	2.10E-04										
EP-AI	Stack for #4 Holder	EU4780	#4 Holding Furnace (Metal Products)	N/A		OP2001-066	19.18		20%	0.4	0.4	0.4	2.10E-04										
EP-AJ	Stack for Homogenizing Furnace #1	EU4790	#1 Homogenizing Furnace	N/A		OP2001032	19.18		20%														
EP-AK	Stack for Homogenizing Furnace #2	EU4800	#2 Homogenizing Furnace	N/A		OP2001032	19.18		20%														
EP-AL	Stack for Homogenizing Furnace #3	EU4810	#3 Homogenizing Furnace	N/A		OP2001032	19.18		20%														
EP-AN	Stack for Pig Melter #2	EU4830	#5 Pig Melter (Metal Products)	N/A		OP2001-066	19.18		20%	0.4	0.4	0.4	2.10E-04						See Note 1	See Note 2			
EP-BA	Stack for Rod Mill #1 Melter	EU4840	#1 Charge Furnace (Rod Mill)	N/A		OP2001-066	19.18		40%	0.4	0.4	0.4	2.10E-04										
EP-BB	Stack for Rod Mill #1 Holder	EU4850	#3 Holding Furnace (Rod Mill)	N/A		OP2001-066	19.18		40%	0.4	0.4	0.4	2.10E-04										
EP-BC	Stack for Rod Mill #2 Melter	EU4860	#2 Charge Furnace (Rod Mill)	N/A		OP2001-066	19.18		40%	0.4	0.4	0.4	2.10E-04										
EP-BD	Stack for Rod Mill #2 Holder	EU4870	#4 Holding Furnace (Rod Mill)	N/A		OP2001-066	19.18		40%	0.4	0.4	0.4	2.10E-04										
EP-BH	#5 Rod Mill Holder	EU4890	Cone Casting Furnace	N/A		OP2001-066	12.06		20%	0.4	0.4	0.4	2.10E-04						See Note 1	See Note 2			
EP-BI	Natural Gas Fired Boiler for Office Heat	EU4900	Hot Water Boiler	N/A		OP2001032	N/A	Exempt per 20010032 Statement of Basis	40%														
EP-BJ	Natural Gas Fired Boiler for Locker Room Heat	EU4910	Hot Water Boiler	N/A		OP2001032	N/A	0.61	20%														
EP-BK	Natural Gas Fired Boiler for Locker Room Heat	EU4920	Hot Water Boiler	N/A		OP2001032	N/A	Exempt per 20010032 Statement of Basis	40%														
EP-BL	#2 Diesel Fuel Storage Tank	N/A	Fuel Tank	N/A		Insignificant activity	N/A		N/A														
EP-BM	#2 Diesel Fuel Storage Tank	N/A	Fuel Tank	N/A		Insignificant activity	N/A		N/A														
EP-BN	Gasoline Storage Tank	N/A	Fuel Tank	N/A		Insignificant activity	N/A		N/A														
EP-DW	Potline Crusher	New - EU5000	Potline Crusher	CD-DW	018	New unit - No Const Permit Reqd per 3/08/1999 MDNR correspondence	12.06		20%												3.7543		
EP-100	Anode Paste Process	New - EU5100	Rotary Lube Blower	CD-100	071	New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5110	Air Vayor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5120	Turntable Vibrating Compactor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5130	Kneader			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5140	Pitch Weigh Pot			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5150	Pitch Pumps			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5160	Pitch Pumps			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
EP-101	Fraction Handling	New - EU5200	Slide Gate	CD-101	018	New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5210	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5220	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5230	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5240	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5250	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5260	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5270	Air Vayor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5300	Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
EP-102	Preconditioning System	New - EU5310	Screw Conveyor	CD-102	018	New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			

Summary of Applicable Emission Limits

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Code	Current Operating Permit	10-6.400 PM Limit (lb/hr)	10-6.405 PM Limit (lb/MMBtu)	10-6.220 or 40 CFR Part 60, Subpart S - Opacity Limit	Subpart RRR - PM Limit (lb/ton feed)	Subpart RRR - HCl Limit (lb/ton feed)	Subpart RRR - HF Limit (lb/ton feed)	Subpart RRR - DIF Limit (gr/ton feed)	Subpart LL - TF Limit (lb/ton Al or green anode)	Subpart LL - POM Limit (lb/ton Al or green anode)	Subpart LL - PM Limit (lb/ton Al or green anode)	Subpart LL - Hg Limit (ug/DSCM)	Subpart LL - POM Limit (lb/ton green anode)	PM10 Limit (tpy)	VOC Limit (tpy)	Attachment B PM10 Limit (lb/hr)	SO2 Limit (tpy)	CO Limit (lb/hr)
EP-102	Proportioning System	New - EU5320	Bucket Elevator	CD-102	015	New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
		New - EU5330	Preheating Screw Conveyor			New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
EP-108	Phase 1 & 2 Rod Brush Station	New - EU5400	Rod Brush Station	CD-108	015	New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
EP-109	Phase 3 Rod Brush Station	New - EU5410	Rod Brush Station	CD-109	015	New unit - Const Permit 0298-001	42.53		20%										See Note 1	See Note 2			
EP-110	Anode Crushing	?	Anode Crushing						20%														
EP-111	Anode Saw	?		CD-110					20%														
EP-112	Rod Mill 2 Holding Furnace # 6	?		N/A		New unit - 122007-005			20%														
EP-113	Rod Mill 2 Holding Furnace # 7	?		N/A		New unit - 122007-005			20%														
EP-115	Fresh Ore Material Handling, 136 Intermediate Silo	New - EU5420	Fresh Ore Material Handling, 136 Intermediate Silo	N/A					20%														
EP-116	Rod Mill 3 Holding Furnace # 8	New - EU5430	Rod Mill 3 Holding Furnace # 8	N/A		New unit - 042013-011			20%														
EP-117	Rod Mill 3 Holding Furnace #9	New - EU5440	Rod Mill 3 Holding Furnace #9	N/A		New unit - 042013-011			20%														

NOTE:
1. Construction Permit 0298-001 established an emission limit of 15 tpy PM10 for all units included in Permit 0298-001, 0894-002, 0194-008,
2. Construction Permit 0298-001 established an emission limit of 40 tpy VOC for all units included in Permit 0298-001, 0894-002, 0194-008, 0990-013, 1288-003, and 1282-007.

ATTACHMENT 4

Process Weight Rule and Compliance Assurance Monitoring Applicability Calculations

PM and PM10 Emissions Data Summary for Use in Evaluating the Process Weight Rule Requirements as well as the Compliance Assurance Monitoring Requirements

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Description	Capture Efficiency	Control Efficiency For Purposes of Evaluating Compliance with PWR	Updated MHDR (tph)	Updated SCC	Updated Emission Factor (lb/ton)	Source of Updated Emission Factor	Specific Pollutant Represented by Updated Emission Factor	Uncontrolled PTE Based on Updated MHDR (lb/hr)	Uncontrolled PTE Based on Updated MHDR (tpy)	Controlled PTE Based on Updated MHDR (lb/hr)	Calculated PM PWR Limit Based on Updated MHDR	Is PWR PM Limit Greater than Uncontrolled lb/hr PM Emission Rate (i.e. Inherent Compliance without Control)? If "Yes", the unit is inherently in compliance with the PWR.	Is PWR PM Limit Greater than Controlled lb/hr PM Emission Rate (i.e. Inherent Compliance with Control)? If "Yes", the unit is inherently in compliance with the PWR.	Does the Unit Meet CAM Criteria #1 (subject to an emission limit)?	Does the Unit meet CAM Criteria #2 (use a control device to meet limit)?	Does the Unit meet CAM Criteria #3 (Uncontrolled PTE > 100 tpy)?	Is uncontrolled PTE greater than Major Source threshold (100 tpy)? If "Yes", Emission Point meets CAM Criteria 3.	Is this Unit Subject to CAM ?
EP-01	River Unloading	EU0010	Vacuum Unloader	CD-1	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the vacuum process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-02	River Unloading	EU0020	Vacuum Unloader	CD-2	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the vacuum process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-03	River Unloading	EU0030	Air Slide	CD-3	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0040	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0050	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0060	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0070	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0080	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0090	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0100	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-04	Railcar Unloading	EU0110	Vibrating Feeder	CD-4	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0120	Vibrating Feeder				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0130	Vibrating Feeder				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0140	Screw Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0150	Car Shaker				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-05	Fresh Ore Material Handling	EU0160	Bucket Elevator	CD-5	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0170	Bucket Elevator				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0180	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0190	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0200	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0210	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0220	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0230	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0240	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0250	Air Slide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-06	Fresh Ore Material Handling	EU0260	Air Slide	CD-6	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-07	Fresh Ore Material Handling	EU0270	Belt Conveyor	CD-7	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0280	Screening Machine				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0290	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0300	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0310	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0320	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0330	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0350	Fan				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0360	Fan				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0370	Lift Tower				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0380	Lift Tower				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0390	Blower with filters and Motor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0400	Blower with filters and Motor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0410	Blower with filters and Motor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0430	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-08	Fresh Ore Material Handling	EU0440	Lift Tower	CD-8	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0450	Lift Tower				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0460	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0480	Blower with filters and Motor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0490	Blower with filters and Motor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0500	Blower with filters and Motor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0510	Fan				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0520	Fan				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0530	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0540	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0550	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0560	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0570	Air Gravity Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0580	Screening Machine				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0590	Belt Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-09	Reacted Ore Material Handling	EU0600	Airslide	CD-9	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0610	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0620	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0630	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0640	Belt Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-10	Reacted Ore Material Handling	EU0650	Belt Conveyor	CD-10	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-11	Fresh Ore Material Handling	EU0660	Belt Conveyor	CD-11	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0670	Flow Control Gate				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0680	Flow Control Gate				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0690	Flow Control Gate				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0700	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0710	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0720	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0730	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0740	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0750	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0760	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0770	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0780	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-12	Reacted Ore Material Handling	EU0790	Belt Conveyor	CD-12	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0800	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0810	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-13	Reacted Ore Material Handling	EU0820	Side Discharge Gate	CD-13	18	100	99	200	30300104	10	FIRE	PM	2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0830	Belt Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0840	Belt Conveyor				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0850	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0860	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0870	Airslide				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0880	Bucket Elevator				99	200	30300104	10	FIRE		2000	8760	20.00	58.51	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-14	Fresh Ore Material Handling	EU0890	Belt Conveyor	CD-14	18	100	99	100	30300104	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0900	Airslide				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU0910	Airslide				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-15	Fresh Ore Material Handling	EU0920	Blower with filters and Motor	CD-15	18	100	99	100	30300104	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0950	Air Gravity Conveyor				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0960	Air Gravity Conveyor				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0970	Air Gravity Conveyor				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0980	Air Gravity Conveyor				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU0990	Air Gravity Conveyor				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1000	Air Gravity Conveyor				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1010	Air Gravity Conveyor				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1020	Airslide				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1030	Airslide				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1040	Airslide				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1050	Airslide				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-16	Fresh Ore Material Handling	EU1060	Air Gravity Conveyor	CD-16	18	100	99	100	30300104	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-17	Fresh Ore Material Handling	EU1070	Air Gravity Conveyor	CD-17	18	100	99	100	30300104	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-18	Fresh Ore Material Handling	EU1080	Air Gravity Conveyor	CD-18	18	100	99	100	30300104	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-19	Fresh Ore Material Handling	EU1090	Air Gravity Conveyor	CD-19	18	100	99	100	30300104	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-20	Fresh Ore Material Handling	EU1100	Air Gravity Conveyor	CD-20	18	100	99	100	30300104	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-21	Fresh Ore Material Handling	EU1110	Air Gravity Conveyor	CD-21	18	100	99	100	30300104	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1120	Air Gravity Conveyor				99	100	30300104	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Description	Capture Efficiency	Control Efficiency For Purposes of Evaluating Compliance with PWR	Updated MHDR (tph)	Updated SCC	Updated Emission Factor (lb/ton)	Source of Updated Emission Factor	Specific Pollutant Represented by Updated Emission Factor	Uncontrolled PTE Based on Updated MHDR (lb/hr)	Uncontrolled PTE Based on Updated MHDR (tpy)	Controlled PTE Based on Updated MHDR (lb/hr)	Calculated PM PWR Limit Based on Updated MHDR	Is PWR PM Limit Greater than Uncontrolled lb/hr PM Emission Rate (i.e. Inherent Compliance without Controls)? If "Yes", the unit is inherently in compliance with the PWR.	Is PWR PM Limit Greater than Controlled lb/hr PM Emission Rate (i.e. Inherent Compliance with Controls)? If "Yes", the units is inherently in compliance with the PWR.	Does the Unit Meet CAM Criteria #1 (subject to an emission limit)?	Does the Unit meet CAM Criteria #2 (use a control device to meet limit)?	Does the Unit meet CAM Criteria #3 (uncontrolled PTE > 100 tpy)?	Is uncontrolled PTE greater than Major Source threshold (100 tpy)? If "Yes", Emission Point meets CAM Criteria 3.	Is this Unit Subject to CAM ?
EP-22	Fresh Ore Material Handling	EU1130	Air Gravity Conveyor	CD-22	18	100	99	100	30300184	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1140	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1150	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1160	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1170	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1180	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1190	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-23	Fresh Ore Material Handling	EU1200	Screw Conveyor	CD-23	18	100	99	100	30300184	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1210	Screw Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1220	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1230	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1240	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1250	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1260	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1270	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1280	Air Gravity Conveyor				99	100	30300184	10	FIRE		1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-24	Fresh Ore Material Handling	EU1300	Bucket Elevator	CD-24	18	100	99	100	30300184	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-25	Fresh Ore Material Handling	EU1310	Air-Float Conveyor	CD-25	18	100	99	100	30300184	10	FIRE	PM	1000	4380	10.00	51.28	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-26	Reacted Ore Material Handling	EU1320	Airslide	CD-26	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-27	Reacted Ore Material Handling	EU1330	Air Gravity Conveyor	CD-27	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-28	Reacted Ore Material Handling	EU1340	Air Gravity Conveyor	CD-28	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-29	Reacted Ore Material Handling	EU1350	Air Gravity Conveyor	CD-29	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-30	Reacted Ore Material Handling	EU1360	Air Gravity Conveyor	CD-30	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-31	Reacted Ore Material Handling	EU1370	Air Gravity Conveyor	CD-31	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-32	Reacted Ore Material Handling	EU1380	Air Gravity Conveyor	CD-32	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-33	Reacted Ore Material Handling	EU1390		CD-33	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-34	Reacted Ore Material Handling	EU1400	Air Gravity Conveyor	CD-34	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-35	Reacted Ore Material Handling	EU1420	Air Gravity Conveyor	CD-35	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1430	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1440	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1450	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1460	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1470	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1480	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-36	Reacted Ore Material Handling	EU1500	Air Gravity Conveyor	CD-36	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1510	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1520	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1530	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1540	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1550	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
		EU1560	Air Gravity Conveyor				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-37	Reacted Ore Material Handling	EU1570	Air Gravity Conveyor	CD-37	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-38	Reacted Ore Material Handling	EU1580	Air Gravity Conveyor	CD-38	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-39	Reacted Ore Material Handling	EU1590	Air Gravity Conveyor	CD-39	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-40	Reacted Ore Material Handling	EU1600	Air Gravity Conveyor	CD-40	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-41	Reacted Ore Material Handling	EU1610	Air Gravity Conveyor	CD-41	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-42	Reacted Ore Material Handling	EU1620	Air Gravity Conveyor	CD-42	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-43	Reacted Ore Material Handling	EU1630	Air Gravity Conveyor	CD-43	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-44	Reacted Ore Material Handling	EU1640	Air Gravity Conveyor	CD-44	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-45	Reacted Ore Material Handling	EU1650	Air Gravity Conveyor	CD-45	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-46	Electrolyte Recovery	EU1660	Power and Fans	CD-40/40A	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1670	Bath Chipping Station	CD-40/40A	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1680	Butt Blowoff Cabinet	CD-40/40A	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-48	Electrolyte Recovery	EU1700	Vibrating Screen	CD-48	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-49	Electrolyte Recovery	EU1710	Belt Conveyor	CD-49	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1720	Roll Crusher		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1730	Bucket Elevator		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1740	Bucket Elevator		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1750	Screw Conveyor		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1760	Screw Conveyor		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1770	Screw Conveyor		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1780	Screw Conveyor		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1790	Screw Conveyor		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1800	Screw Feeder		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1810	Screw Feeder		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1820	Vibrating Screen		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1830	Bath, Dense Phase Pump		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1840	Bath, Dense Phase Pump		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1850	Crucible Cleaning Machine		18		99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-50	Electrolyte Recovery	EU1860	Vibrating Feeder	CD-50	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1870	Magnetic Separator				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
		EU1880	Rotary Breaker				99	40	30300184	10	FIRE		400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-55	Electrolyte Recovery	EU1930	Air Slide	CD-56	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-56	Electrolyte Recovery	EU1940	Air Slide	CD-55	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-57	Fresh Ore Material Handling	EU1950	Air Receiver	CD-57	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-58	Electrolyte Recovery	EU1960	Butt Blast Cleaning Machine	CD-58	18	100	99	40	30300184	10	FIRE	PM	400	1752	4.00	42.53	No	Yes	Yes	Yes	Yes	Yes	Subject to CAM
EP-59	Monitor - Potline 1	EU1970	Potline 1 (secondary emissions-roof vents)	N/A	N/A	0	0	10.4	30300101	5	AP-42	PM	52	228	52.00	Included in EU1990	Included in EU1990		N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-60	Monitor - Potline 2	EU1980	Potline 2 (secondary emissions-roof vents)	N/A	N/A	0	0	10.4	30300101	5	AP-42	PM	52	228	52.00	Included in EU1990	Included in EU1990		N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-61	Potline 1 & 2 Stack	EU1990	Potline 1 (primary emissions - stack)	CD-61/61A (20 of 40 scrubbers)	071	95	98.82	10.4	30300101	69	FIRE/AP-42	PM	925.6	4054	10.92	19.69	No	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU2000	Potline 2 (primary emissions - stack)	CD-61/61A (20 of 40 scrubbers)	071	95	97.67	10.4	30300101	69	FIRE/AP-42	PM	925.6	4054	21.57	19.69	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-62	161 Unit Stack	EU2010	Potline 3 (primary emissions-161 unit stack)	CD-62 (8 scrubbers)	071	95	99.78	6.4	30300101	69	FIRE/AP-42	PM	569.6	2495	1.25	14.22	No	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU1690	Butt Cooling Bays	CD-62 (8 scrubbers)	071	95	99	20	30300104	10	FIRE	PM	200	876	2.00	30.51	No	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-63	162 Unit Stack	EU2030	Potline 3 (primary emissions-162 unit stack)	CD-63 (8 scrubbers)	071	95	99.78	6.4	30300101	69	FIRE/AP-42	PM	569.6	2495	1.20	14.22	No	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-64	Monitor - Potline 3	EU2050	Potline 3 (secondary emissions-roof vent fugitives)	N/A	N/A	N/A	0	12.8	30300101	5	AP-42	PM	64	280	N/A	Included in EU2010 and EU2030	Included in EU2010 and EU2030		N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-65	Petroleum Coke Handling	EU2060	Belt Conveyor	CD-65	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2070	Belt Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2080	Belt Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2090	Belt Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2100	Belt Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-66	Petroleum Coke Handling	EU2110	Belt Conveyor	CD-66	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2120	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2130	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-67	Petroleum Coke Handling	EU2140	Screw Conveyor	CD-67	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2150	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2160	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-68	Primary Crusher (North)	EU2170	Tumble Mill	CD-68	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2180	Butt Removal Press				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2190	Primary Butt Crusher				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2200	Secondary Butt Crusher				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2210	Vibrating Screen				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2220	Separator				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2230	Vibrating Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Description	Capture Efficiency	Control Efficiency For Purposes of Evaluating Compliance with PWR	Updated MHDR (tph)	Updated SCC	Updated Emission Factor (lb/ton)	Source of Updated Emission Factor	Specific Pollutant Represented by Updated Emission Factor	Uncontrolled PTE Based on Updated MHDR (lb/hr)	Uncontrolled PTE Based on Updated MHDR (tpy)	Controlled PTE Based on Updated MHDR (lb/hr)	Calculated PM PWR Limit Based on Updated MHDR	Is PWR PM Limit Greater than Uncontrolled lb/hr PM Emission Rate (i.e. Inherent Compliance without Controls)? If "Yes", the unit is inherently in compliance with the PWR.	Is PWR PM Limit Greater than Controlled lb/hr PM Emission Rate (i.e. Inherent Compliance with Controls)? If "Yes", the units is inherently in compliance with the PWR.	Does the Unit Meet CAM Criteria #1 (subject to an emission limit)?	Does the Unit meet CAM Criteria #2 (use a control device to meet limit)?	Does the Unit meet CAM Criteria #3 (uncontrolled PTE > 100 tpy)?	Is uncontrolled PTE greater than Major Source threshold (100 tpy)? If "Yes", Emission Point meets CAM Criteria 3.	Is this Unit Subject to CAM ?
		EU2240	Vibrating Feeder				99	40	30300312	0.12	FIRE EF with multiple cyclone control = 0.006 lb/ton. The uncontrolled emission factor was calculated by backing out the control of the cyclones. AP-42 (9/90) Appendix B, Table B.2-3, Control Device 076 Efficiency for multiple cyclone without fly ash reinjection = 95% (conservative estimate since no control is provided for PM). Therefore, the uncontrolled AP-42 emission factor = 0.006/.05 = 0.12 lb PM/ton.		4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-69	Primary Crusher (South)	EU2250	Tumble Mill	CD-69	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2260	Butt Removal Press				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2270	Magnetic Separator				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2280	Belt Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2290	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2300	Vibrating Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2310	Vibrating Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-70	Tertiary Crusher	EU2320	Ball Mill	CD-70	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2330	Tertiary Butts Crusher				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2340	Bucket Elevator				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2350	Vibrating Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-71	Anode Paste Production	EU2400	Bucket Elevator	CD-71	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2410	Bucket Elevator				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2460	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2450	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2470	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2560	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2630	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2640	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2650	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2660	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2670	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2680	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2690	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2980	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3000	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new -EU5010	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new -EU5020	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new -EU5030	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new -EU5040	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new -EU5050	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new -EU5060	Magnetic Separator				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-72	Anode Paste Production	EU2600	Roll Crusher	CD-72	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2390	Bucket Elevator				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2480	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2480	Rotary Vane Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2580	Rotary Vane Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2610	Rotary Vane Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2620	Rotary Vane Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2630	Rotary Vane Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2880	Screw Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU2940	Screw Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3200	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new -EU5070	Tramp Iron Separator				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-73	Anode Paste Production	EU3060	Vibratory Feeder	CD-73	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3070	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3080	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3090	Vibratory Feeder				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3100	Conveyor / Bucket Elevator				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3110	Paste Mixer				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3120	Belt Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3130	Apron Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-74	Anode Paste Production	EU3140	Screw Conveyor	CD-74	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3150	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3160	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3170	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3180	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3190	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3200	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3220	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		EU3230	Screw Conveyor				99	40	30300312	0.12			4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-79	Anode Cleaning System	EU3620	Anode Cleaning Station	CD-79	18	100	99	40	30300312	0.12		PM	4.8	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-80	Fresh Ore Handling	EU3630	Air-Float Conveyor	CD-80	18	100	99	40	30300081	6	FIRE	PM	240	1051	2.40	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-81	Fresh Ore Handling	EU3640	Air-Float Conveyor	CD-81	18	100	99	40	30300081	6	FIRE	PM	240	1051	2.40	42.53	No	Yes	Yes	No, baghouse is inherent to the pneumatic process	Does not Meet Criteria 2, so no need to determine Criteria 3	Does not Meet Criteria 2, so no need to determine Criteria 3	Not Subject to CAM
EP-82	Anode Stem Cleaning (Phase I)	EU3650	Stub and Rod Cleaner	CD-82	18	100	99	1	30300312	0.12	See note EP-65 through EP-79.	PM	0.12	1	0.00	4.10	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-83	Cathode Casting Station	EU3660	Collector Bar Cleaner	CD-83	18	100	99	1	30300312	0.12		PM	0.12	1	0.00	4.10	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-84	Anode Stem Cleaning	EU3670	Rod and Stub Cleaner	CD-84	18	100	99	1	30300312	0.12		PM	0.12	1	0.00	4.10	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-98	Carbon Bake 1 Stacks (64 total)	EU3760	Roll Conveyor (carbon bake)	CD-98 (4 scrubbers)	071	100	84.67	10.4	30300105	3	FIRE/AP-42	PM	31.20	137	4.72	18.69	No	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	Yes	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3770	Roll Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3780	Roll Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3790	Roll Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3800	Roller Flight Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3810	Belt Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3820	Belt Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3830	Power Roll Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3840	Power Roll Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3850	Power Roll Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3860	Power Roll Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3870	Power Roll Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3880	Power Roll Conveyor (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3890	Pusher (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3900	Screw Conveyor				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3910	Screw Conveyor				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3920	Conveyor, Chain Drive (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3930	Conveyor, Chain Drive (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3940	Vertical Reciprocating Lift (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3950	Air/Material Manifold				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3960	Burner Manifold (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3970	Burner Manifold (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3980	Burner Manifold (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU3990	Burner Manifold (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		EU4000	Burner Manifold (carbon bake)				84.67											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Description	Capture Efficiency	Control Efficiency For Purposes of Evaluating Compliance with PWR	Updated MHDR (t/hr)	Updated SCC	Updated Emission Factor (lb/ton)	Source of Updated Emission Factor	Specific Pollutant Represented by Updated Emission Factor	Uncontrolled PTE Based on Updated MHDR (lb/hr)	Uncontrolled PTE Based on Updated MHDR (tpy)	Controlled PTE Based on Updated MHDR (lb/hr)	Calculated PM PWR Limit Based on Updated MHDR	Is PWR PM Limit Greater than Uncontrolled Bake PM Emission Rate (i.e. Inherent Compliance without Controls)? If "Yes", the unit is inherently in compliance with the PWR.	Is PWR PM Limit Greater than Controlled Bake PM Emission Rate (i.e. Inherent Compliance with Controls)? If "Yes", the unit is inherently in compliance with the PWR.	Does the Unit Meet CAM Criteria #1 (subject to an emission limit)?	Does the Unit meet CAM Criteria #2 (use a control device to meet limit)?	Does the Unit meet CAM Criteria #3 (uncontrolled PTE > 100 tpy)?	Is uncontrolled PTE greater than Major Source threshold (100 tpy)? If "Yes", Emission Point meets CAM Criteria 3.	Is this Unit Subject to CAM ?
		BU4010	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	Yes	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4020	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4030	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4040	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4050	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4060	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4070	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4080	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4090	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4100	Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4110	Power Roll, Gravity Rolls (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4120	Bar Flight (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4130	Screw Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4140	Screw Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4150	Screw Conveyor (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4160	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4170	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-99	Carbon Bake 2 Stacks (54 total)	BU4180	Conveyor, Chain Driven (carbon bake)	CD-99 (4 scrubbers)	071	100	88.33	10.4	30300105	3	FIRE/AP-42	PM	31.20	137	3.64	19.69	No	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4190	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4200	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4210	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4220	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4230	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4240	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4250	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4260	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4270	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4280	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4290	Conveyor, Chain Driven (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4300	Green Anode Stacker (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4310	Burner Manifold (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4320	Burner Manifold (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4330	Burner Manifold (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4340	Burner Manifold (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4350	Burner Manifold (carbon bake)				88.33											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4360	Power Roll Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	Yes	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4370	Power Roll Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4380	Power Roll Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4390	Power Roll Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4400	Power Roll Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4410	Power Roll Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4420	Roller Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4430	Roller Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4440	Roller Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4450	Roller Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4460	Accumulation Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4470	Bar Flight Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4480	Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4490	Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4500	Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4510	Screw Conveyor (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4520	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-AA	Carbon Bake 1 Stack	BU4530	Conveyor, Chain Driven (carbon bake)	CD-AA (4 scrubbers)	071	100	77.8	12.8	30300105	3	FIRE/AP-42	PM	38.40	168	8.53	22.63	No	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4540	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4550	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4560	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4570	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4580	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4590	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4600	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4610	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4620	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4630	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4640	Conveyor, Chain Driven (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4650	Burner Manifold (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4660	Burner Manifold (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4670	Burner Manifold (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4680	Burner Manifold (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4690	Burner Manifold (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
		BU4700	Burner Manifold (carbon bake)				77.8											Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP

PM and PM10 Emissions Data Summary for Use in Evaluating the Process Weight Rule Requirements as well as the Compliance Assurance Monitoring Requirements

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Description	Capture Efficiency	Control Efficiency For Purposes of Evaluating Compliance with PWR	Updated MHDR (tph)	Updated SCC	Updated Emission Factor (lb/ton)	Source of Updated Emission Factor	Specific Pollutant Represented by Updated Emission Factor	Uncontrolled PTE Based on Updated MHDR (lb/hr)	Uncontrolled PTE Based on Updated MHDR (tpy)	Controlled PTE Based on Updated MHDR (lb/hr)	Calculated PM PWR Limit Based on Updated MHDR	Is PWR PM Limit Greater than Uncontrolled lb/hr PM Emission Rate (i.e. Inherent Compliance without Control)? If "Yes", the unit is inherently in compliance with the PWR.	Is PWR PM Limit Greater than Controlled lb/hr PM Emission Rate (i.e. Inherent Compliance with Control)? If "Yes", the unit is inherently in compliance with the PWR.	Does the Unit Meet CAM Criteria #1 (subject to an emission limit)?	Does the Unit meet CAM Criteria #2 (use a control device to meet limit)?	Does the Unit meet CAM Criteria #3 (uncontrolled PTE > 100 tpy)?	Is uncontrolled PTE greater than Major Source threshold (100 tpy)? If "Yes", Emission Point meets CAM Criteria 3.	Is this Unit Subject to CAM ?
EP-AB	Stack for Pig Melter	EU4710	#3 Melting Furnace-Pig (Metal Products)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-AD	Stack for #1 Melter	EU4730	#1 Melting Furnace (Metal Products)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-AE	Stack for #1 Holder	EU4740	#1 Holding Furnace (Metal Products)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-AF	Stack for #2 Melter	EU4750	#2 Melting Furnace (Metal Products)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-AG	Stack for #2 Holder	EU4760	#2 Holding Furnace (Metal Products)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-AH	Stack for #4 Melter	EU4770	#4 Melting Furnace (Metal Products)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-AI	Stack for #4 Holder	EU4780	#4 Holding Furnace (Metal Products)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-AN	Stack for Pig Melter #2	EU4830	#5 Pig Melter (Metal Products)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-BA	Stack for Rod Mill #1 Melter	EU4840	#1 Charge Furnace (Rod Mill)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-BB	Stack for Rod Mill #1 Holder	EU4850	#3 Holding Furnace (Rod Mill)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-BC	Stack for Rod Mill #2 Melter	EU4860	#2 Charge Furnace (Rod Mill)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-BD	Stack for Rod Mill #2 Holder	EU4870	#4 Holding Furnace (Rod Mill)	N/A	N/A	0	0	10	30400102	1.9	FIRE	PM	19.00	83	19.00	19.18	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-BH	#5 Rod Mill Holder	EU4890	Cone Casting Furnace	N/A	N/A	0	0	5	30400102	1.9	FIRE	PM	9.50	42	9.50	12.05	Yes	Yes	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP	No	No	No	N/A Exempt from CAM since subject to post 1990 NSPS or NESHAP
EP-BW	Potline Crusher	new - EU5000	Potline Crusher	CD-BW	18	100	99	5	30300310	0.11	FIRE	PM	0.55	2	0.01	12.05	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-100	Anode Paste Process	new - EU5100	Rotary Lobe Blower	CD-100	071	100	99	40	30300312	0.12	See note EP-65 through EP-79.	PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5110	Air Veyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5120	Turntable Vibrating Compactor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5130	Kneader			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5140	Pitch Weigh Pot			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5150	Pitch Pump			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5160	Pitch Pump			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-101	Fraction Handling	new - EU5200	Slide Gate	CD-101	18	100	99	40	30300312	0.12	See note EP-65 through EP-79.	PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5210	Screw Conveyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5220	Screw Conveyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5230	Screw Conveyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5240	Screw Conveyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5250	Screw Conveyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5260	Screw Conveyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5270	Air Veyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-102	Proportioning System	new - EU5300	Screw Conveyor	CD-102	18	100	99	40	30300312	0.12	See note EP-65 through EP-79.	PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5310	Screw Conveyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5320	Bucket Elevator			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
		new - EU5330	Preheating Screw Conveyor			100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-108	Phase 1 & 2 Rod Brush Station	new - EU5400	Rod Brush Station	CD-108	18	100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-109	Phase 3 Rod Brush Station	new - EU5410	Rod Brush Station	CD-109	18	100	99	40	30300312	0.12		PM	4.80	21	0.05	42.53	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-110	Anode Crushing	New - EU5420	Anode Crushing	CD-110	18	100	99	12.24	30300312	0.04		PM	0.48	2	0.00	22.01	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-111	Anode Saw		No permit required.	CD-111																			
EP-112	Rod Mill 2 Holding Furnace # 6		Rod Mill 2 Holding Furnace # 6		N/A	100	99		30300312		Permit # 122007-005	PM											
EP-113	Rod Mill 2 Holding Furnace # 7		Rod Mill 2 Holding Furnace # 7		N/A	100	99		30300312			PM											
EP-115	Fresh Ore Material Handling, 136 Intermediate Silo	New - EU5420	Fresh Ore Material Handling, 136 Intermediate Silo																				
EP-116	Rod Mill 3 Holding Furnace # 8	New - EU5430	Rod Mill 3 Holding Furnace # 8	N/A	N/A	100	99	3.27	30300312	0.3834	Permit # 042013-011	PM	3.17	14	0.03	16.89	Yes	Yes	Yes	No	No	No	Not Subject to CAM
EP-117	Rod Mill 3 Holding Furnace #9	New - EU5440	Rod Mill 3 Holding Furnace #9	N/A	N/A	100	99	3.27	30300312	0.3834		PM	3.17	14	0.03	16.89	Yes	Yes	Yes	No	No	No	Not Subject to CAM

ATTACHMENT 5

Compliance Assurance Monitoring (CAM) Applicability Analysis

40 CFR Part 64 Compliance Assurance Monitoring Applicability Determination

This section presents the basis for the applicability determination for 40 CFR 64 Compliance Assurance Monitoring. CAM requirements were not required to be addressed in the initial operating permit application, but CAM requirements must be addressed in the application for a permit renewal.

CAM Background

The U.S. Environmental Protection Agency (EPA) promulgated the CAM rule, 40 CFR 64, on October 22, 1997. The purpose of this rule, according to EPA, is "to provide a reasonable assurance of compliance with applicable requirements" pursuant to the Clean Air Act Amendments of 1990.

Per 40 CFR 64.2(a), CAM applies to emission units that satisfy all of the following criteria:

1. Emission units subject to an emission limitation or standard for a regulated air pollutant (or a surrogate thereof) except emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to Section 111 (includes NSPS requirements) or 112 (includes NESHAP requirements) of the Clean Air Act (CAA).
2. Emission units that use a control device to achieve compliance with any such emission limitation or standard.
3. Emission units that have potential pre-control device emissions of the regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

40 CFR 64 defines emission unit using the definition provided in 40 CFR 70. Emission unit as it is defined in 40 CFR 70.2 means "*any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under section 112(b) of the Act*". 40 CFR 64 defines control device as "*equipment, other than inherent process equipment, that is used to destroy or remove air pollutant prior to discharge to the atmosphere.*" Finally, 40 CFR 64 defines inherent process equipment as "*equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations*".

Per 40 CFR 64.2(b)(1), emission limitations or standards proposed after November 15, 1990 pursuant to Section 111 of the Clean Air Act (i.e. New Source Performance Standards (NSPS)) or 112 of the Clean Air Act (i.e. National Emission Standards for Hazardous Air Pollutants (NESHAPs)) do not constitute emission standards for purposes of evaluating whether an emission unit meets CAM Criteria #1.

If an emission unit is determined to be subject to CAM, pursuant to 40 CFR 64.3, Magnitude 7 Metals is required to design monitoring to obtain data for one or more indicators of emission-control performance for the control device and any associated capture system such as ducts and fans. Further, pursuant to 40 CFR 64.4, the monitoring designed as required by 40 CFR 64.3 is required to be summarized in a CAM plan, and the CAM plan must be submitted to the MDNR as part of the operating permit renewal application.

CAM Analysis

CAM must be evaluated on an individual pollutant basis. Emission units that satisfy all three criteria listed above for a specific regulated pollutant are subject to CAM for the control device. Prior to evaluating pollutant-specific CAM requirements, Magnitude 7 Metals eliminated from CAM consideration all pollutants with limits established pursuant to a MACT or NSPS. Refer to Attachment 3 for a summary of the unit-specific emission limits. For Magnitude 7 Metals, the non-MACT or non-NSPS regulated pollutants include PM, PM_{10}, VOC, CO, and SO_2.

SO_2

Refer to Attachment 3 for a summary of the emission units with SO_2 limits. None of the emission units subject to an SO_2 emission limit use a control device for SO_2 (Criteria #2 as listed above). Therefore, Magnitude 7 Metals does not have any emission units that trigger CAM requirements for SO_2.

VOC

VOC is regulated under Construction permit 0298-001 for the emission units associated with the green mill. Refer to Attachment 3 for a summary of the emission units with VOC limits. None of the emission units subject to a VOC emission limit use a control device for VOC (Criteria #2 as listed above). Therefore, Magnitude 7 Metals does not have any emission units that trigger CAM requirements for VOC.

CO

CO is regulated under PSD construction permit 102004-001A for the potlines. Refer to Attachment 3 for a summary of the emission units with CO limits. None of the emission units subject to a CO emission limit use a control device for CO (Criteria #2 as listed above). Therefore, Magnitude 7 Metals does not have any emission units that trigger CAM requirements for CO.

PM and PM_{10}

PM and PM_{10} are regulated under 10-6.400 and under PSD construction permit 102004-001A, respectively. Refer to Attachment 3 for a summary of the emission units with PM and/or PM_{10} limits. Magnitude 7 Metals adopted a tiered approach to evaluating which emission units at the facility require CAM. First, Magnitude 7 Metals determined the emission units that meet CAM

Criteria #1 (i.e. emission units are subject to an emission limitation or standard for a regulated air pollutant). Second, for units that meet CAM Criteria #1, Magnitude 7 Metals determined the emission units that meet CAM Criteria #2 (i.e. emission units use a control device to achieve compliance with the emission limitation or standard). Finally, for units that meet CAM Criteria #1 and CAM Criteria #2, Magnitude 7 Metals determined the emission units that meet CAM Criteria #3 (emission units with uncontrolled PTE greater than the major source threshold).

In order for CAM Criteria #2 to be satisfied, an emission unit subject to an emission standard must require a control device to meet the emission standard, where control device is defined as "*equipment, other than inherent process equipment, that is used to destroy or remove air pollutant prior to discharge to the atmosphere.*" It is possible for a piece of process equipment to be perceived as a control device, simply because it accomplishes emission reduction. However, equipment that is inherent to the process operation that achieves emission reduction as a co-benefit is not considered control equipment. This is true even if the co-benefit is required to meet an emission standard. For example, consider a material transfer point that generates PM and is subject to a PM emission standard pursuant to the process weight rule. Consider that the PM generated during the material transfer is exhausted to a dust collection system and captured by a fabric filter that recovers the PM back to the process. In this case, the primary purpose of the dust collection system is to recover material back to the process. Without the dust collection system, the emission unit cannot comply with the process weight rule, but the primary purpose of the dust collection system is product recovery and not emission control. The PM limit is not the reason that the dust collection system is operated, and in the absence of the PM limit, the dust collection system would continue to operate.

Magnitude 7 Metals operates a number of units with that meet CAM criteria #1 and #3, but that do not meet CAM Criteria #2. The next sections describe these units.

A significant number of the material handling emission units have baghouses as part of pneumatic (air-driven) systems. The emission points with baghouses that are associated with pneumatic systems are listed in Table 1.

TABLE 1. SUMMARY OF EMISSION POINTS ASSOCIATED WITH PNEUMATIC SYSTEMS

Emission Point ID	Emission Point Description	Control Device ID	Control Device Description
EP-03	River Unloading	CD-3	Baghouse
EP-06	Fresh Ore Material Handling	CD-6	Baghouse
EP-15	Fresh Ore Material Handling	CD-15	Baghouse
EP-16	Fresh Ore Material Handling	CD-16	Baghouse
EP-17	Fresh Ore Material Handling	CD-17	Baghouse
EP-18	Fresh Ore Material Handling	CD-18	Baghouse
EP-19	Fresh Ore Material Handling	CD-19	Baghouse
EP-20	Fresh Ore Material Handling	CD-20	Baghouse
EP-21	Fresh Ore Material Handling	CD-21	Baghouse
EP-22	Fresh Ore Material Handling	CD-22	Baghouse
EP-25	Fresh Ore Material Handling	CD-25	Baghouse
EP-26	Reacted Ore Material Handling	CD-26	Baghouse
EP-27	Reacted Ore Material Handling	CD-27	Baghouse
EP-28	Reacted Ore Material Handling	CD-28	Baghouse
EP-29	Reacted Ore Material Handling	CD-29	Baghouse
EP-30	Reacted Ore Material Handling	CD-30	Baghouse
EP-31	Reacted Ore Material Handling	CD-31	Baghouse
EP-32	Reacted Ore Material Handling	CD-32	Baghouse
EP-33	Reacted Ore Material Handling	CD-33	Baghouse
EP-34	Reacted Ore Material Handling	CD-34	Baghouse
EP-35	Reacted Ore Material Handling	CD-35	Baghouse
EP-36	Reacted Ore Material Handling	CD-36	Baghouse
EP-37	Reacted Ore Material Handling	CD-37	Baghouse
EP-38	Reacted Ore Material Handling	CD-38	Baghouse
EP-39	Reacted Ore Material Handling	CD-39	Baghouse
EP-40	Reacted Ore Material Handling	CD-40	Baghouse
EP-41	Reacted Ore Material Handling	CD-41	Baghouse
EP-42	Reacted Ore Material Handling	CD-42	Baghouse
EP-43	Reacted Ore Material Handling	CD-43	Baghouse
EP-44	Reacted Ore Material Handling	CD-44	Baghouse
EP-45	Reacted Ore Material Handling	CD-45	Baghouse
EP-55	Electrolyte Recovery	CD-55	Baghouse
EP-56	Electrolyte Recovery	CD-56	Baghouse
EP-57	Fresh Ore Material Handling	CD-57	Baghouse
EP-80	Fresh Ore Handling	CD-80	Baghouse
EP-81	Fresh Ore Handling	CD-81	Baghouse

In a pneumatic system, a low pressure blower supplies air to lift material (i.e. fresh alumina ore, reacted alumina ore, or electrolytes recovered from the anodes) off the floor of the air slide. The material flows downhill through an air gravity conveyor. A fan on a baghouse pulls the material-

laden air through the baghouse catching any material that may be in the air stream and exhausting the air stream out through a filter. The baghouse is physically located between the fan and blower, and together the blower and fan provide the pneumatic power source for the material transfer. The baghouse is an integral part of the pneumatic system, and the pneumatic system requires interlocks between the process blower and the dust collector fan that do not allow the process to be operated without the dust collector. The interlocks are either hardwired between the blower and fan or the interlocks are maintained by an electronic Programmable Logic Controller (PLC) system.

Hardwire interlocks for a process mean that multiple pieces of equipment are wired such that the equipment operates together and a single switch either out in the field or in the Motor Control Center (MCC) triggers operation of all equipment hardwired together. If any of the equipment that is hardwired malfunctions, all hardwired equipment shuts down. Interlocks maintained by a PLC system mean that the operation of the blower and fan are controlled electronically, and the electronic code is written such that the operation of the blower and fan are contingent upon each other. If a piece of equipment that is interlocked in the PLC system shuts down, all other interlocked equipment shuts down. Bypassing a hardwire interlock would require rewiring of the equipment. Bypassing a PLC interlock would require alterations to the electronic code.

Two material handling emission units have baghouses as part of vacuum systems. The emission points with baghouses that are associated with vacuum systems are listed in Table 2.

TABLE 2. SUMMARY OF EMISSION POINTS ASSOCIATED WITH VACUUM SYSTEMS

Emission Point ID	Emission Point Description	Control Device ID	Control Device Description
EP-01	River Unloading	CD-1	Baghouse
EP-02	River Unloading	CD-2	Baghouse

The vacuum systems listed in Table 2 are both associated with unloading of alumina ore off the river barge. A hose is inserted into the alumina ore on the barge, and the alumina ore is sucked up for transfer to the plant. The blower that creates the vacuum that allows the alumina ore to be sucked off of the barge also pulls the material-laden air through the baghouses for river unloading catching any material that may be in the air stream and exhausting the air stream out through a filter. Since the vacuum system uses the same blower to pull material off the barge and to pull air through the dust collector, the dust collector is an integral part of the vacuum system. If the dust collector malfunctions, the blower shuts off, which shuts down the entire vacuum system.

As described above, the baghouses associated with pneumatic and vacuum systems are an integral part of process operation. It should also be mentioned that the baghouses for these processes are designed to recover material that collects in the baghouse filters and return it back to downstream process equipment via filter blowback. The material recovery is essential for decreasing raw or in-process material costs.

In summary, baghouses that are part of pneumatic systems or vacuum systems are inherent to the operation of the material transfer processes and provide for product recovery. Therefore, the

baghouses do not meet CAM Criteria #2 (i.e. the baghouses do not meet the 40 CFR 64 definition of control device), and the baghouses are not subject to CAM requirements.

In addition to the pneumatic and vacuum systems, other emission units have baghouses as part of an in-line fluidized bed scrubber/baghouse combination that are inherent to the operation of the process. These in-line fluidized bed scrubber/baghouses are listed in Table 3.

TABLE 3. SUMMARY OF EMISSION POINTS WITH INHERENT CONTROL DEVICES

Emission Point ID	Emission Point Description	Control Device ID	Control Device Description
EP-61	Potline I & II Stack	CD-61/61A	40 In line fluidized bed scrubbers/baghouses
EP-62	161 Unit Stack	CD-62	8 In line fluidized bed scrubbers/baghouses
EP-63	162 Unit Stack	CD-63	8 In line fluidized bed scrubbers/baghouses
EP-98	Carbon Bake 1 Stacks (64 total)	CD-98	4 In line fluidized bed scrubbers/baghouses
EP-99	Carbon Bake 2 Stacks (64 total)	CD-99	4 In line fluidized bed scrubbers/baghouses
EP-AA	Carbon Bake 3 Stack	CD-AA	4 In line fluidized bed scrubbers/baghouses

The emission points listed in Table 3 are the stacks for the potlines and carbon anode baking processes. All of the emission units associated with the potlines and carbon anode baking processes emit fluorides, and the fluoride emissions from these processes are regulated under 40 CFR 63, Subpart LL. In order to comply with the fluoride emission limits established in 40 CFR 63, Subpart LL, Magnitude 7 Metals operates in-line fluidized bed scrubbers/baghouses. A diagram of one of the in-line fluidized bed scrubbers/baghouses is provided at the end of this CAM applicability analysis.

The in-line fluidized bed scrubbers/baghouses utilize fresh alumina ore as the fluidized bed material to remove fluorides in the exhaust captured from the potlines or carbon baking processes. Alumina ore that is fed to a potline requires the addition of fluoride to maintain the process chemistry balance. By sending the fresh alumina ore through the scrubbers and thereby adding fluorides to the alumina ore prior to feeding the alumina ore to the potlines, Magnitude 7 Metals reduces the cost for raw material fluoride compounds that would otherwise need to be added to the alumina ore. All of Magnitude 7 Metals's scrubbers use fresh alumina ore as the fluidized bed material. The ore that leaves the scrubber is referred to as reacted ore, and the reacted ore is fed to the potlines. The fresh alumina ore that is the fluidized bed material in the scrubbers is considered a process material, and the scrubber serves both as a piece of control equipment and as a piece of process equipment.

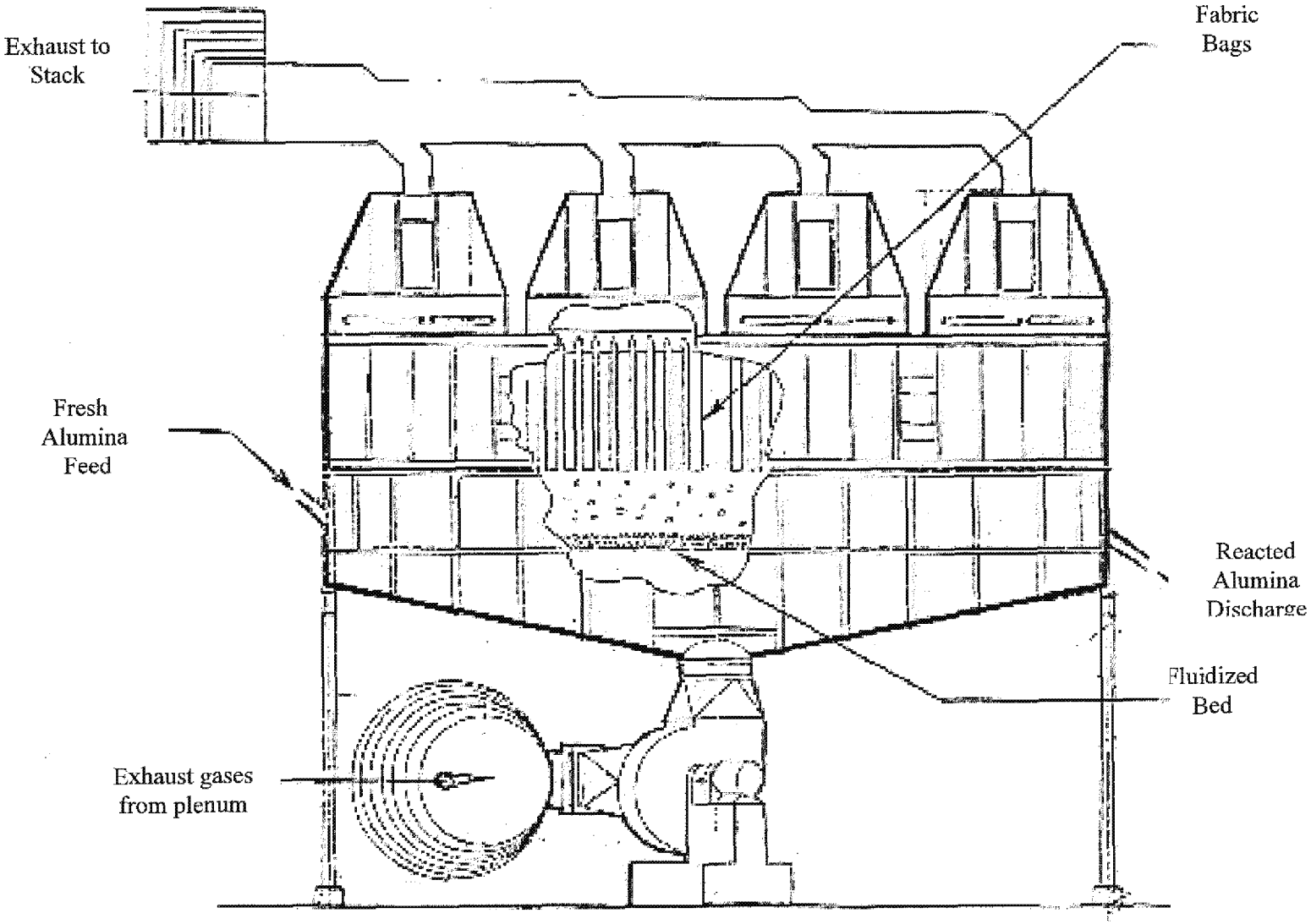
Similar to the baghouses for material transfer, the baghouses that are in-line with the fluidized bed scrubbers recover alumina ore and recycle ore back to the process to prevent the loss of valuable raw material.

In summary, the in-line fluidized bed scrubbers/baghouses are required to comply with the 40 CFR Part 63, Subpart LL fluoride emission limit. The scrubbers are also integral to the process operation in that fluorides that are necessary for the potline process chemistry balance are added to the fresh alumina ore in lieu of purchasing fluoride compounds to add to the fresh ore. The in-line baghouses recover raw material back to the process. Since the in-line fluidized bed scrubbers/baghouses are required for compliance with a NESHAP and are an integral part of the manufacturing process, the in-line fluidized bed scrubbers/baghouses do not meet CAM Criteria #2 (i.e. the in-line fluidized bed scrubbers/baghouses do not meet the 40 CFR 64 definition of control device), and the in-line fluidized bed scrubbers/baghouses are therefore not subject to CAM requirements.

Based on a review of emission units that trigger all three CAM criteria, 17 baghouses are subject to CAM requirements. Table 4 provides a summary of the baghouses that trigger CAM requirements. Attachment 6 provides a CAM template for the baghouses that trigger CAM. Magnitude 7 Metals intends to wait to receive approval of the CAM Plan template prior to completing CAM Plans for the other 16 baghouses.

TABLE 4. SUMMARY OF EMISSION POINTS AND ASSOCIATED CONTROL DEVICES SUBJECT TO CAM

Emission Point ID	Emission Point Description	Control Device ID	Control Device Description
EP-04	Railcar Unloading	CD-4	Baghouse
EP-05	Fresh Ore Material Handling	CD-5	Baghouse
EP-07	Fresh Ore Material Handling	CD-7	Baghouse
EP-08	Fresh Ore Material Handling	CD-8	Baghouse
EP-09	Reacted Ore Material Handling	CD-9	Baghouse
EP-10	Reacted Ore Material Handling	CD-10	Baghouse
EP-11	Fresh Ore Material Handling	CD-11	Baghouse
EP-12	Reacted Ore Material Handling	CD-12	Baghouse
EP-13	Reacted Ore Material Handling	CD-13	Baghouse
EP-14	Fresh Ore Material Handling	CD-14	Baghouse
EP-23	Fresh Ore Material Handling	CD-23	Baghouse
EP-24	Fresh Ore Material Handling	CD-24	Baghouse
EP-46	Electrolyte Recovery	CD-46 and 46A	2 Baghouses
EP-48	Electrolyte Recovery	CD-48	Baghouse
EP-49	Electrolyte Recovery	CD-49	Baghouse
EP-50	Electrolyte Recovery	CD-50	Baghouse
EP-58	Electrolyte Recovery	CD-58	Baghouse


Exhaust to Stack
Fabric Bags
Fresh Alumina Feed
Reacted Alumina Discharge
Fluidized Bed
Exhaust gases from plenum

ATTACHMENT 6

Compliance Assurance Monitoring (CAM) Plan
Baghouses

Compliance Assurance Monitoring Plan
Magnitude 7 Metals, Incorporated – New Madrid, MO

I. Emissions Point/Emission Unit/Control Device

Emission Point ID	Emission Point Description	Emission Unit ID	Emission Unit Description	Control Device ID	Control Device Description
EP-04	Railcar Unloading	EU0110	Vibrating Feeder	CD-4	018
		EU0120	Vibrating Feeder		
		EU0130	Vibrating Feeder		
		EU0140	Screw Conveyor		
		EU0150	Car Shaker		

II. Applicable Regulations, Emission Limit, and Monitoring Requirements

PM limits for Emission Units from 10-6.400 Process Weight Rule
PM_{10} limit for Emission Point set in Attachment B of PSD Permit 2003-11-053

II. Control Device

Baghouse CD-4

The key elements of the baghouse compliance assurance monitoring, including the performance indicator parameter, the performance indicator parameter range, and performance monitoring criteria are summarized in Table 1.

TABLE 1. BAGHOUSE MONITORING SUMMARY

Performance Indicator Parameter	Pressure drop across the baghouse filter system
Performance Indicator Parameter Range	1-13.5 inches of water
Representativeness of Performance Indicator	Magnitude 7 Metals has been conducting weekly pressure drop monitoring in accordance with the existing Title V permit to demonstrate compliance with the PM limits established by 10-6.400. The weekly pressure drop measurements were used to establish the upper and lower bounds of the pressure drop range for the daily pressure drop monitoring that will be used to demonstrate compliance with both the PM limits established by 10-6.400 and PSD Permit 2003-11-053.
Verification of Operational Status of Performance Indicator Measurement Device	The pressure indicating instrument will be calibrated in accordance with manufacturer's recommendations.

QA/QC Practices and Criteria	The dust collector will be operated and maintained in accordance with the Air Control Operations Manual. Pressure drop measurements that indicate a pressure drop outside of the specified performance criteria range will be investigated per AC 5.01 in the Air Control Operations Manual or manufacturer's recommendations. Quarterly inspections of the filter system for leaks, wear or other abnormalities will be completed per AC 5.02 in the Air Control Operations Manual or manufacturer's recommendations.
Performance Indicator Measurement Frequency and Data Collection Procedures	Since the controlled emissions for the emission units are less than the major source threshold, the pressure drop will be recorded once daily. The pressure drop reading may be taken manually by plant personnel or recorded automatically via plant control system computers.

CAM JUSTIFICATION

I. Background

The emission units included in this CAM Plan were determined to subject to CAM, since the emission units meet the three CAM applicability criteria listed in 40 CFR 64. The emission units are controlled by a baghouse (CD-4), and this CAM Plan details the compliance assurance monitoring that will be performed on the baghouse.

II. Rationale for Selection of Performance Indicators

Pressure Drop across the filter system: Per Appendix H of the Operating Permit Application Instructions provided by the Missouri Department of Natural Resources, the pressure drop across the filter system can be used to measure the performance of a baghouse.

III. Rationale for Indicator Range Selection

Pressure Drop across the filter system: Magnitude 7 Metals is required by the current Title V operating permit to monitor the pressure drop across the baghouse on a weekly basis. The historical pressure drop data for the baghouse was reviewed to establish the upper and lower bounds of the pressure drop range for the daily pressure drop monitoring.

While the pressure drop will be monitored to determine if the pressure drop falls in the range observed for the historical data, operation of the baghouse outside of the proposed pressure drop range does not necessarily indicate a change in the efficiency of the baghouse. Magnitude 7 Metals established with the issuance of PSD permit 2003-11-053 that baghouses and their associated fans operate in an on/off manner, and as long as a baghouse is on, the emissions from the baghouse remain constant, as the effluent particle concentration is nearly constant based on the filter design. The U.S. EPA Air Pollution Control Technology Fact Sheets, document numbers EPA-452/F03-024 and EPA-452/F03-025, Achievable Emission Limits further support baghouses being constant outlet devices. The fact sheets state the following,

"For a given combination of filter design and dust, the effluent particle concentration from a fabric filter is nearly constant,.. For this reason, fabric filters can be considered to be constant outlet devices..."

It has been determined that the baghouse is required to meet PM/PM_{10} limits. As long as the baghouse is on, compliance with the PM/PM_{10} limits will be achieved. Therefore, a broad range of pressure drops will indicate that the unit is on and functioning normally. The indicator range for this baghouse was selected based on the full range of pressure drop data available from the monitoring data required by the current Title V permit. A pressure drop reading outside the range included in this CAM plan does **not** indicate an exceedance of the associated limit. Pressure drop readings outside the established range will be treated as an excursion and investigated to determine if further corrective action is required. The steps in the investigation of these excursions, and, if needed, any resulting corrective actions, will be documented.

Per EPA guidance contained in the Compliance Assurance Monitoring Rule Implementation Questions and Responses (January 8, 1998 Memorandum from Steven J. Hitte to Air Program Managers in Regions I-X), Magnitude 7 Metals requests that revisions to the pressure drop range be allowed without requiring a modification to the Title V operating permit. If an excursion outside of the established pressure drop range occurs, an investigation will be conducted and documented to determine if corrective action is required. If the investigation determines that the baghouse is operating properly, the pressure drop range for that baghouse may be modified to include the new data. Documentation of the investigation of excursions used to broaden an indicator range will be kept on file at the site with the CAM plan for the specific unit. A summary of any modifications to the pressure drop range will be submitted with the Title V semi-annual monitoring report for that time period.

CAM TESTING AND IMPLEMENTATION PLAN

I. Test Plan

Pressure Drop across the filter system: Magnitude 7 Metals has been utilizing pressure drop measurements on the baghouse as an indicator of the baghouse performance. In order to fulfill the CAM requirements for the baghouse, Magnitude 7 Metals is increasing the pressure-drop measurement frequency to once per day. Since historical data indicating the performance of the baghouse was used to establish the pressure drop range for the baghouse, no testing is necessary to establish the relationship between the pressure drop range and baghouse performance.

II. Implementation Plan

Pressure Drop across the filter system: No CAM implementation plan is necessary. The infrastructure for operating and maintaining the pressure indicating devices are in place.

APPENDIX A

The CAM Plan for Baghouse CD-4 is being submitted as a template for the 17 baghouses that will be subject to CAM requirements upon CAM renewal. The CAM Plan document will be the same for each of the remaining baghouses, with the pressure drop range in each plan specific to that baghouse. The pressure drop range documented in the existing monitoring records for each baghouse is summarized in Table 2 below.

TABLE 2. BAGHOUSE PRESSURE DROP RANGE SUMMARY

Baghouse #	Process Step	Pressure Drop Range (inches of water)	
		Low	High
CD-4	Railcar Unloading	0.1	13.5
CD-5	Fresh Ore Material Handling	0.5	10
CD-7	Fresh Ore Material Handling	0.02	14
CD-8	Fresh Ore Material Handling	0.01	12
CD-9	Reacted Ore Material Handling	0.35	9
CD-10	Reacted Ore Material Handling	0.5	13.6
CD-11	Fresh Ore Material Handling	0.2	10
CD-12	Reacted Ore Material Handling	0.2	15
CD-13	Reacted Ore Material Handling	0.4	12
CD-14	Fresh Ore Material Handling	0.2	13
CD-23	Fresh Ore Material Handling	0.4	15
CD-24	Fresh Ore Material Handling	0.2	15
CD-46/46A	Electrolyte Recovery	0.04	14.5
CD-48	Electrolyte Recovery	0.3	13.5
CD-49	Electrolyte Recovery	0.5	13
CD-50	Electrolyte Recovery	0.4	12.5
CD-58	Electrolyte Recovery	0.05	11.9

ATTACHMENT 7

February 21, 2006 Letter Addressed to MDNR with Regard to Changes to Butt Cooling Bay Exhaust Requirements

February 21, 2006

Mr. Berhanu Getahun
Missouri Department of Natural Resources
Air Pollution Control Program
Operating Permit Unit
P.O. Box 176
Jefferson City, MO 65102

Dear Mr. Getahun:

As part of the December 15, 1980 stipulation and amendment to permit number 0679-008 to 011 for our New Madrid facility, Noranda Aluminum, Inc. (Noranda) constructed a special cleaning room for the spent anodes from Potline 3. The permit requires this Butt Cooling Bay (EU1690) to be vented to Potline 3's dry scrubber system (EP-62 and EP-63) for the first two hours of cooling, with the airflow divided equally between EP-62 and EP-63. The dry scrubber system on Potline 3 consists of a fluidized bed scrubber with filter bags following the scrubber to remove particulate matter. For the remainder of the cooling period, the airflow from the Butt Cooling Bay is routed to a stand-alone conventional baghouse (EP-47).

Noranda has reviewed the operating process and determined that it will be more energy efficient to route the airflow from the Butt Cooling Bay (EU1690) for Potline 3 through the combined scrubber system (EP-62 and EP-63) for the entire cooling period. This will provide equivalent or better control for both fluorides and particulate matter, and will still meet the requirement that the airflow be treated by a conventional baghouse for the remainder of the butt cooling period. Noranda will no longer switch the airflow from the combined scrubber system to the stand alone conventional baghouse after the first two hours of cooling, thereby allowing EP-47 to be taken off-line and save the electrical costs of it's operation.

The stand-alone baghouse (EP-47) has a total airflow of 150,000 cubic feet per minute, made of 3 modules containing 576 - 22 oz. polyester bags that are cleaned with a sonic horn. The baghouses associated with Potline 3's scrubber (EP-62 and EP-63) have a total airflow of 700,000 cubic feet per minute, made of 16 modules containing 576 - 22 oz. polyester bags that are cleaned with a sonic horn.

After reviewing the current permit requirements, Noranda feels this change can be made without permit modifications, and is submitting this letter as notification to MDNR of this modification of operations. Please provide written confirmation that MDNR concurs with this approach.

Noranda submitted a Title V Renewal Application on October 7, 2005 for all four Part 70 operating permits at the facility. Upon receipt of concurrence from MDNR that this

change does not require permit modification, Noranda will submit the appropriate updates to the Title V Renewal Application package to reflect this operational change.

Please call me at (573) 643-2361, extension 2126, if you have questions or comments on this notification.

Sincerely,

Don Backfisch
Environmental Superintendent